GV-CMS Series

User's Manual V8.5.9.0

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Contents

Chapter 1 Center V2 1

1.1 Minimum System Requirements 2

1.2 Installation 3

1.2.1 Standard Version 3

1.2.2 Professional Version 3

1.3 The Center V2 Window 4

1.4 Subscriber Account 9

1.4.1 Creating a Subscriber 10

1.4.2 Subscriber Settings 12

1.4.3 Attachment Mode Settings 14

1.4.4 Channel Heading 18

1.5 Connection to Center V2 19

1.5.1 Setting Normal Mode 20

1.5.2 Setting Panic Button 31

1.5.3 Detecting Input Status 32

1.6 Live View 33

1.7 Recording 35

1.8 Playback 36

1.8.1 Attachment Playback 36

1.8.2 Remote Playback 40

1.9 Two-Way Audio 42

1.10 Advanced Monitoring and Management 44

1.10.1 Showing I/O Status 44

1.10.2 Controlling I/O Devices 46

1.10.3 Camera/Audio Control Window 47

1.10.4 Camera Monitor 50

1.10.5 Viewing Subscriber Information 52

1.10.6 Disabling Subscription 52

1.11 Subscriber Schedule 53

1.11.1 Setting a Schedule 53

1.11.2 Scheduling Alert Notification 55

1.12 Alarm Report 56

1.12.1 Creating an Alarm Report 56

1.12.2 Editing Alarm Report Categories 58

1.12.3 Printing Alarm Reports 59
1.13 Event List 60
1.13.1 Marking the Events with Colorful Flags 60
1.13.2 Using the Event Tabs 62
1.13.3 Setting Alert Levels of Event Messages 65
1.14 Event Log Browser 67
1.14.1 Opening the Event Log 68
1.14.2 Filtering the Event Log 69
1.14.3 Backing up the Event Log 71
1.14.4 Setting the Event Log 73
1.14.5 Printing the Event Log 74
1.15 System Configuration 75
1.15.1 General Settings 75
1.15.2 Layout Settings 78
1.15.3 Network Settings 80
1.15.4 Recording Settings 81
1.15.5 Dispatch Server Settings 84
1.16 Notification Settings 85
1.17 Output Alerts 87
1.17.1 Configuring a Local GV-I/O Box 87
1.17.2 Configuring a Virtual GV-I/O Box 88
1.17.3 Triggering Outputs by Event 89
1.17.4 Triggering Outputs Manually 90
1.18 SMS Alerts 91
1.18.1 Setting SMS Server 91
1.18.2 Connecting to SMS Server 93
1.18.3 Sending SMS 93
1.18.4 Inserting Device Information 94
1.19 E-Mail Alerts 96
1.19.1 Setting Mailbox 96
1.19.2 Sending E-Mail 98
1.19.3 Inserting Device Information 98
1.20 E-Map Alerts 99
1.20.1 The Remote E-Map Window 99
1.20.2 Configuring the Remote E-Map 101
1.21 Event Chart 103
1.21.1 Accessing the Event Chart 103

1.21.2 Event Chart 106
1.22 Failover Server 107
1.23 Assigning a Subscriber to Another Center V2 109
1.24 Channel Display on Another Monitor 110

Chapter 2 Dispatch Server 111

2.1 Minimum System Requirements 112
2.2 Installation 113
2.3 The Dispatch Sever Window 114
2.4 Subscriber Account 116
2.5 Service Startup 119
2.6 Connecting Center V2 to Dispatch Server 121
2.7 Connecting GV-System to Dispatch Server 122
2.8 Connecting GV-IP Device to Dispatch Server 123
2.9 Setting a Primary Center V2 Server 126
2.10 Event Query 127
2.11 Event List 128
2.12 Subscription Schedule 130
2.13 Live View 131
2.14 Log Browser 132
2.14.1 Dispatch Log Browser 132
2.14.2 Event Log Browser 133
2.15 System Configuration 134
2.16 SMS Alerts 137
2.17 E-Mail Alerts 138
2.18 Event Chart 139
2.19 Failover Server 141

Chapter 3 Vital Sign Monitor 143

3.1 Minimum System Requirements 144
3.2 Installation 146
3.3 The VSM Window 147
3.4 Subscriber Account 151
3.5 Service Startup 152
3.6 Connection to VSM 153
3.6.1 Advanced Settings for Subscription 155

3.6.2 Detecting Input Status 162
3.7 Subscriber Monitoring 163
3.7.1 Viewing Subscriber Status 163
3.7.2 Viewing Storage Information 165
3.7.3 Disabling Subscription 166
3.8 Subscriber Schedule 167
3.9 Alarm Report 168
3.10 Remote Playback 169
3.11 Event List 170
3.11.1 Adding Event Tabs 170
3.11.2 Setting up the Customized Event Tab 171
3.11.3 Setting Alert Level of Event Messages 172
3.12 Event Log Browser 173
3.13 System Configuration 174
3.13.1 System Settings 174
3.13.2 Password Settings 176
3.13.3 Event Log Settings 176
3.13.4 Notification Settings 177
3.13.5 Alerts Interval Settings 178
3.14 Output Alerts 179
3.14.1 Configuring a Local GV-I/O Box 179
3.14.2 Configuring a Virtual GV-I/O Box 179
3.14.3 Triggering Outputs by Event 179
3.14.4 Triggering Outputs Manually 180
3.15 SMS Alerts 181
3.15.1 Setting SMS Server 181
3.15.2 Sending SMS 181
3.15.3 Inserting Device Information 182
3.16 E-Mail Alerts 183
3.16.1 Setting Mailbox 183
3.16.2 Sending E-Mail 183
3.16.3 Inserting Device Information 184
3.17 Temperature Alarm 185
3.18 Event Chart 187
3.19 Failover Server 188

Appendix..... 189

A. Dongle Description 190

Dongle options for Center V2 190

Dongle options for Dispatch Server 190

Dongle options for VSM 191

B. Upgrading the Black Dongle 192

C. Fast Backup and Restoration 194

Installing the FBR Program 194

Backing Up and Restoring Settings 195

D. Watermark Proof 197

E. PTZ Control Using GV-Joystick 198

F. Image Size 199

G. UPnP Settings 200

H. Supported IP Device Brands 202

I. MultiLang Tool for Translated Text 203

J. Specifications 207

Center V2 207

Dispatch Server 208

Comparison of VSM and Center V2 Pro 209

Preface

Guardian Security Solutions Center Monitoring Station series includes Center V2, Dispatch Server, VSM (Vital Sign Monitor), Control Center and GIS. The manual introduces **Center V2**, **Dispatch Server** and **VSM**. For Control Center and GIS, please refer to *GV-Control Center User's Manual* and *GV-GIS User's manual*.

Chapter 1
Center V2

With Center V2, central monitoring station (CMS) can be deployed immediately because it brings multiple GV-Systems together into an integrated interface, allowing the operator to manage several systems from one point of control. The basic feature of Center V2 is to view live video, and receive video evidence (in an attachment format) when any alerts are sent to Center V2. This helps the remote-end operator easily determine the nature of the alarm.

Center V2 also supports GV IP devices (GV-Video Server, GV-Compact DVR, GV-IPCam) for central monitoring.

1.1 Minimum System Requirements

There are two versions of Center V2. The **standard version** can serve up to 5 subscribers and 160 channels at a time. The **professional version** can serve up to 500 subscribers and 800 channels.

Before installation, make sure your computer meets the following minimum requirements.

Standard Version

OS	**32-bit**	Windows XP / Vista / 7 / Server 2008
	64-bit	Windows 7 / Server 2008
CPU		Pentium 4, 3.0 GHz with Hyper-Threading
Memory		2 x 512 MB Dual Channels
Hard Disk		The hard disk space required to install Center V2 (Standard Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 1024 x 768, 32-bit color
DirectX		9.0c

Professional Version

OS	**32-bit**	Windows XP / Vista / 7 / Server 2008
	64-bit	Windows 7 / Server 2008
CPU		Core 2 Duo, 2.4 GHz
Memory		2 x 1 GB Dual Channels
Hard Disk		The hard disk space required to install Center V2 (Professional Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 1024 x 768, 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle

Dongle Options

Combination	Center V2 Pro
	Center V2 + VSM

1.2 Installation

1.2.1 Standard Version

1. Insert the Software DVD to your computer. It runs automatically and a window appears.
2. Select **Install Guardian Security Solutions Paid Software**.
3. Click **GV-Center V2** and follow the on-screen instructions.

1.2.2 Professional Version

1. Connect the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It runs automatically and a window appears.
3. To install the USB device driver, select **Install or Remove Guardian Security Solutions**
   GV-Series Driver and select **Install Guardian Security Solutions USB Device Driver**.
4. To install the GV-Center V2, select **Install Guardian Security Solutions Paid Software**.
5. Click **GV-Center V2** and follow the on-screen instructions.

1.3 The Center V2 Window

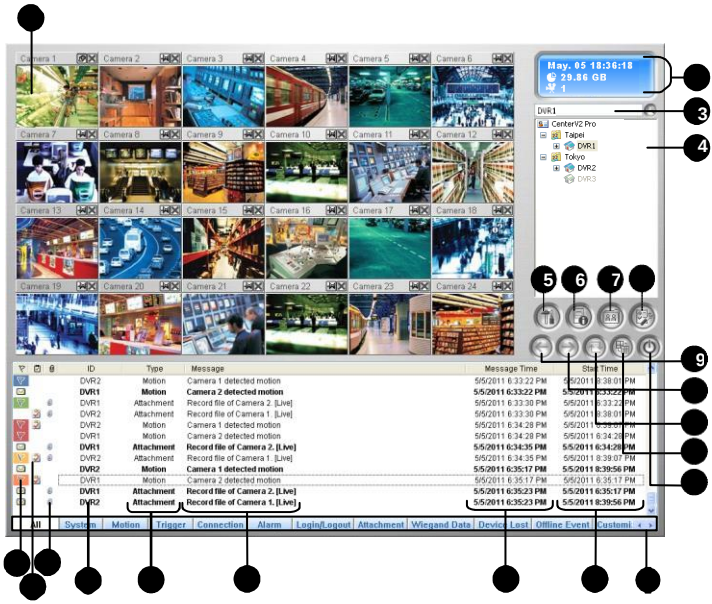


Figure 1-1

The controls on the Center V2 window:

No.	Name	Description
1	Monitoring Window	Displays live video.
2	Status Panel	Indicates the date, time, remaining disk space, and the total number of online channels versus available channels.
3	Find A Subscriber	Type the desired ID in the Current Subscriber field and click this button to search.

No.	Name	Description
4	Subscriber List	Displays subscribers' ID names and online status. **Blue Icon:** Indicates the subscriber is online. **Gray Icon:** Indicates the subscriber is off-line. **Alarm Icon:** Indicates either motion has been detected or the I/O has been triggered at the subscriber's site.
5	Tools	Accesses Event Log, Event List, Event Chart, QView, audio and microphone control, SMS Server configuration, and short message notification.
6	Host Information	Displays the connection status of subscribers.
7	Accounts	Adds, deletes or modifies subscriber accounts.
8	Preference Settings	Brings up these options: System Configure, Event Log Settings, Notification, Password Setup, E-mail Setup, Customize Alarm Report, SMS Setup, I/O Device, Automatic Failover Support and Version Information.
9	Previous Page	Displays the previous page of camera views.
10	Next Page	Displays the next page of camera views.
11	Refresh Channel	Refreshes the connection status.

No.	Name	Description
12	Split Mode	In the 1024 x 768 resolution, select 6, 15, or 24 screen divisions for a single monitor; 9, 25, or 36 screen divisions for dual monitors. In the 1280 x 1024 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1600 x 1200 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 16, or 36 screen divisions for dual monitors. In the 1680 x 1050, 1920 x 1200 and 1440 x 900 resolutions, select 6, 15, or 28 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1920 x 1200 resolution, select 6, 15, or 28 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1920 x 1080 resolution, select 6, 15, or 28 screen divisions for a single monitor; 6, 20, or 35 screen divisions for dual monitors. In the 1280 x 800 resolution, select 6, 12, 24 screen divisions for a single monitor; 9, 16, 30 screen divisions for dual monitors. For resolution, see *Layout Settings* later in this chapter.
13	Exit	Closes or minimizes the Center V2 window.
14	Flag	Flags an event for later reference.
15	Clipboard	Displays the Alarm Report dialog box.
16	Clip	Indicates an event coming with an attachment. Double-click the event to open the attached video file.

No.	Name	Description
17	ID	Indicates a subscriber's ID.
18	Event Type	Indicates the event type: Alarm, Attachment, Connection, Login/Logout, Motion, System, Trigger and Wiegand Data.
19	Message	Indicates associated information for each event type.
20	Message Time	Indicates when Center V2 receives an event.
21	Start Time	Indicates when an event happens at the subscriber's site.
22	Event Categories	Sorts events by types including All, System, Motion, Trigger, Connection, Alarm, Login/Logout, Attachment, Wiegand Data, Device Lost, Offline Event, and Customized Event. The function is only available for the Professional version. For details, see *1.13.2 Using the Event Tabs*.

The types and messages displayed on Center V2:

Type	Message
Motion	Camera xx detected motion.
Trigger	Module xx triggered.
Connection	Camera xx video lost; Module xx I/O lost; Netw ork abnormal; Fail to login to dispatch server; Dispatch server is shutdown; Video signal of xx has resumed; Module xx has returned to normal; Failed to login SMS server; Failed to send short message; SMS server is shutdown.
Alarm	Disk Full; Restarted Failed; Multicam Closed; There isn't enough space for recording; Multicam Surveillance System has been closed; An unexpected error occurred in Multicam Surveillance System. (Error Code: 1 or 2); There is an intruder; Object Missing; Unattended Object; Alert Message of POS; Scene Change.
System	Start/end service; IP change; Record failed; Status change of monitoring camera. On: xx Off: xx / (By Schedule); Stop/start all cameras monitoring; Start/stop I/O Monitoring. / (By Schedule); Schedule start; Schedule stop. All monitoring devise are stop too. Start monitoring all type events; Stop monitoring all type events; Subscriber session is not established. Wait-time expired; Unexpected logout before subscriber session is completed; Can't find USB Protection Key.
Attachment	Record file of Camera xx.
Wiegand Data	Card No. xxxxxx (Camera xx)

Note: Error Code 1 indicates a codec error; Error Code 2 indicates that users can't write or record any data due to HD failure or user privilege.

1.4 Subscriber Account

Create at least one subscriber before starting Center V2 services. On the Center V2 window, click the **Accounts** button (No. 7, Figure 1-1). The Address Book window appears.

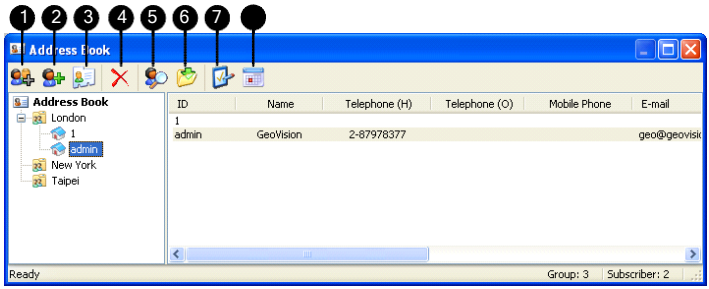


Figure 1-2

The buttons on the Address Book:

No.	Name	Description
1	Add A Group	Adds a group.
2	Add A Subscriber	Adds a subscriber.
3	View / Edit Subscriber Address Book	Highlight one subscriber and click this button to open Subscriber Address Book for viewing and editing.
4	Delete A Group / Subscriber	Highlight a group or a subscriber and click this button to delete it.
5	Find A Subscriber	Searches a subscriber account.
6	Import / Export Address Book	Imports or exports the address book data.
7	Subscriber Settings	Highlight one subscriber and click this button to configure the settings of video and alert formats.
8	Subscriber Schedule	Sets up subscription schedules.

1.4.1 Creating a Subscriber

1. Click the **Add A Group** button (No. 1, Figure 1-2) to create a group.
2. Click the **Add A Subscriber** button (No. 2, Figure 1-2). This dialog box appears.

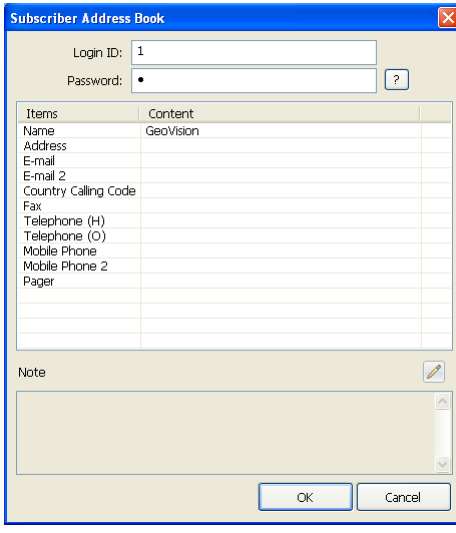


Figure 1-3

3. Type a Login ID and Password. Those will be the ID and Password for the subscriber to log into the Center V2.

4. Type the subscriber's contact information in the rest of fields (optional).

   - If you wish to send e-mail alerts to this subscriber, type its e-mail accounts. Up to two e-mail accounts can be created for the subscriber. For e-mail settings, see *E-Mail Alerts* later in this chapter.
   - If you wish to send SMS alerts to this subscriber, type its country code and mobile numbers. Up to two sets of mobile number can be created for this subscriber. For SMS Server settings, see *SMS Alerts* later in this chapter.

5. Click **OK** to save the above settings. This dialog box appears.

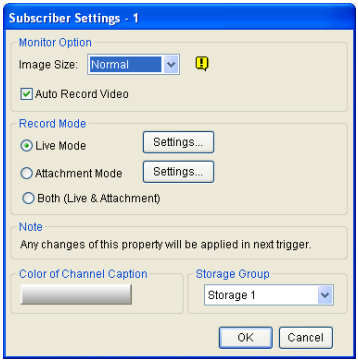


Figure 1-4

6. Assign a Storage Group using the drop-down list. For details, see *Recording Settings*, *1.15 System Configuration*.
7. The options in the dialog box are discussed later. You may accept the default settings here, and edit them later by clicking the **Subscriber Settings** button (No. 7, Figure 1-2) on the toolbar. After you click **OK**, the subscriber account will be created.

1.4.2 Subscriber Settings

[Monitor Option]

- **Image Size:** Sets the size of video size from the subscriber. Each size set from the subscriber corresponds to a certain size displayed at the Center V2 Server. For example, if the video stream from a subscriber is 704 x 576 and Center V2 operator selects **Middle**, the size of displayed image on Center V2 will be 720 x 288. For details on the image size, see *Corresponding Image Sizes of Subscriber and Center V2, Appendix*.

  Center V2 supports megapixel resolution. If the subscriber sets the resolution to megapixel and the Center V2 operator wishes to view
  the videos of the same size, the Center V2 operator can select **Actual Size**. Note this setting will require a lot of bandwidth. It is recommended to select the option in LAN environment.

- **Auto Record Video:** Center V2 automatically records events based on the following Record Mode.

[Record Mode]

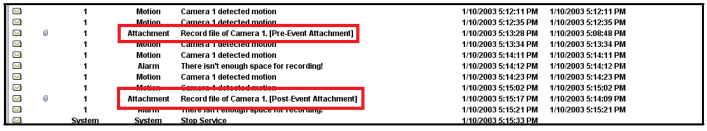
- **Live Mode:** Streams live video to Center V2. This is the default recording mode on the Center V2. Make sure you have enough bandwidth to receive video in live. To set the maximum duration of a video file recorded on Center V2, click the **Settings** button.
- **Attachment Mode:** A defined time of event will be recorded before sending to Center V2. The attachment will be sent out immediately once your subscriber is connected to Center V2. The Attachment Mode also provides several options associated with the attachment. Click the **Settings** button to bring up the Record Settings – Attachment Mode dialog box. See *Attachment Mode Settings* later for further setup.
- **Both (Live & Attachment):** Sends both live video and attachment files.

[Color of Channel Caption]

Changes the color of channel headings. For further setup, see *Channel Heading* later in this chapter.

1.4.3 Attachment Mode Settings

You can set up the duration of a video clip attached w ith a notification message w hich is triggered by motion, input trigger and/or scene change at the subscriber site. You will see the attachment message like the example below on the Event List. Double-clicking the message can play back the video instantly.



	1	Motion	Camera 1 detected motion	1/10/2003 5:12:11 PM	1/10/2003 5:12:11 PM
	1	Motion	Camera 1 detected motion	1/10/2003 5:12:35 PM	1/10/2003 5:12:35 PM
	1	Attachment	Record file of Camera 1. [Pre-Event Attachment]	1/10/2003 5:13:28 PM	1/10/2003 5:08:48 PM
	1	Motion	Camera 1 detected motion	1/10/2003 5:13:34 PM	1/10/2003 5:13:34 PM
	1	Motion	Camera 1 detected motion	1/10/2003 5:14:11 PM	1/10/2003 5:14:11 PM
	1	Alarm	There isn't enough space for recording!	1/10/2003 5:14:12 PM	1/10/2003 5:14:12 PM
	1	Motion	Camera 1 detected motion	1/10/2003 5:14:23 PM	1/10/2003 5:14:23 PM
	1	Motion	Camera 4 detected motion	1/10/2003 5:15:02 PM	1/10/2003 5:15:02 PM
	1	Attachment	Record file of Camera 1. [Post-Event Attachment]	1/10/2003 5:15:17 PM	1/10/2003 5:14:09 PM
	1	Alarm	There isn't enough space for recording!	1/10/2003 5:15:21 PM	1/10/2003 5:15:21 PM
	System	System	Stop Service	1/10/2003 5:15:33 PM	

Note: There are four types of attachment messages: [Attachment] for motion detection, [Input-trigger Attachment] for an input device triggered, [Pre-Event Attachment] for pre-event recordings and [Post-Event Attachment] for post-event recording.

In the Subscriber Settings dialog box (Figure 1-4), select **Attachment Mode**, and click the **Settings** button beside. This dialog box appears.

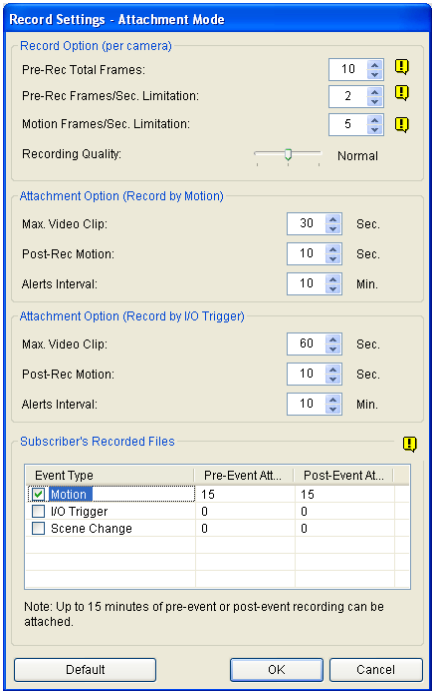


Figure 1-5

[Record Options (per camera)]

- **Pre-Rec Total Frames:** Determines the total pre-recorded frames in a video attachment.
- **Pre-Rec Frames/sec Limitation:** Determines the frame rate in the pre-recorded period.

Note: Dividing the Pre-Rec Total Frames by Pre-Rec Frames/Sec Limitation, you will get the total time of the video attachment.

- **Motion Frames/sec Limitation:** Determines the frame rate of the video to be sent as an attachment.
- **Recording Quality:** Use the slider bar to adjust the video quality in 3 levels.

[Attachment option (Record by Motion)] Defines the duration of the video attachment delivered upon motion.

- **Max video Clip:** Determines the duration of the video attachment.
- **Pos-Rec Motion:** Determines how many seconds of video to be sent after motion stops.
- **Alerts interval:** Determines the interval between notification messages attached with video clips.

[Attachment option (Record by I/O trigger)] Defines the duration of the video attachment delivered upon I/O trigger. The three options are the same as those in **[Attachment option (Record by Motion)]** above.

[Subscriber's Recorded Files] Receives up to 15 minutes of pre-event recordings and post-event recordings separately from a subscriber. The longer video attachment provides the Center V2 administrator more information of what happens before and after an event is triggered.

Select the desired event type, click the **Pre-Event Attachment** and/or **Post-Event Attachment** column, and select the number of clip files to be attached with a notification message.

Note:

1. Up to 15 minutes of the pre-event and post-event recordings can be sent to the Center V2 respectively. If the GV-System host records 5 minutes for every file and you set up 15 clip files for pre-event recording, you can only receive 3 clip files instead.
2. The GV-System must be set to round-the-clock recording.

1.4.4 Channel Heading

For easy identification, you can define the background color of channel headings for each subscriber.

1. On Center V2 window, click the **Accounts** button (No.7, Figure 1-1), highlight a subscriber, and click the **Subscriber Setting** button on the toolbar. The Subscriber Settings dialog box (Figure 1-4) appears.
2. Click the **Color of Channel Caption** button. The color dialog box appears.
3. Select a color you wish to use, and click **OK**. The **Color of Channel Caption** button now displays the color you selected.
4. On the Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-1) and select **System Configure**. The Preference dialog box (Figure 1-53) appears.
5. Click the **General** tab, and select **Use the subscriber setting color as background**. The background color of the channel heading will be in the color you selected.

Figure 1-6

1.5 Connection to Center V2

A single GV-System can connect up to two Center V2 centers simultaneously for central monitoring. To configure GV-System in order to access Center V2 remotely through a network connection, follow these steps:

1. In the Main System, click the **Network** button , and select **Connect to Center V2**. This dialog box appears.

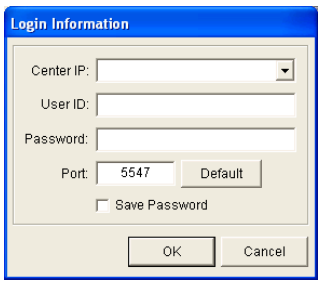


Figure 1-7

2. Type the IP address, ID and password of a Center V2. Modify the default port if necessary. Click **OK**. This dialog box appears.

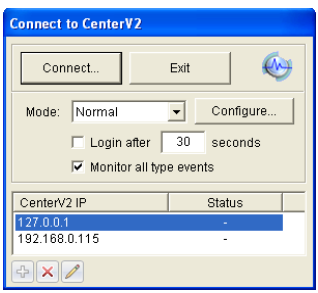


Figure 1-8

3. If you want to establish the connection to the second Center V2, click the button.
4. If you want to modify the login information of the established account, select the account in the dialog box, and click the button.
5. If you want to delete the established account, select the account in the dialog box, and click the button.
6. When you finish the settings, click the **Connect** button to start. When the connection is established, Center V2 will start receiving events, live images or attachments from the subscriber.

1.5.1 Setting Normal Mode

To further define the communication conditions between the subscriber and Center V2, select **Normal Mode** in the Connect to Center V2 dialog box (Figure 1-8), and then click the **Configure** button for setup. A drop-down menu includes two options, **General Settings** and **Advance Settings**. The Advance Settings dialog box includes these tabs: (1) Camera, (2) Other and (3) I/O Device.

1.5.1.1 General Settings

The settings define the retry modes and communication ports between GV-System and Center V2.

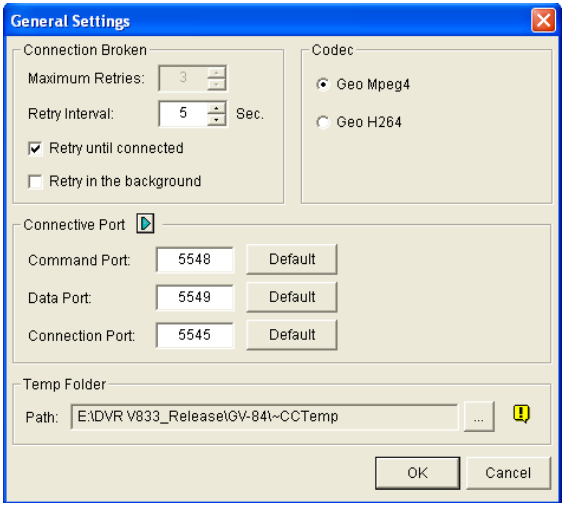


Figure 1-9

[Connection Broken]

- **Maximum Retries:** Sets the number of retries if connection is not immediately available.
- **Retry Interval:** Sets the interval between retries.
- **Retry until connected:** Keeps GV-System on trying until connected to Center V2.
- **Retry in the background:** Hides the retries in the background.

[Codec] Selects **Geo Mpeg 4** (default) or **Geo H264** as the compression method for video sent to Center V2.

[Connective Port] Displays ports used for communication. It is recommended to keep the default settings, unless otherwise necessary.

To automatically configure these ports on your router by UPnP technology, click the **Arrow** button. For details on UPnP settings, see *UPnP Settings*, *Appendix*.

[Temp Folder] Attachments are temporarily stored in this folder while waiting to be sent to Center V2. In case the connection is broken, attachments meant to be sent to Center V2 could be found here. Once the connection is back to normal, events saved in the Temp Folder will be sent out immediately.

1.5.1.2 Advanced Settings

Camera

The settings define which camera condition to notify Center V2. To configure the event type, first disable the **Monitor all type events** option in Figure 1-8.

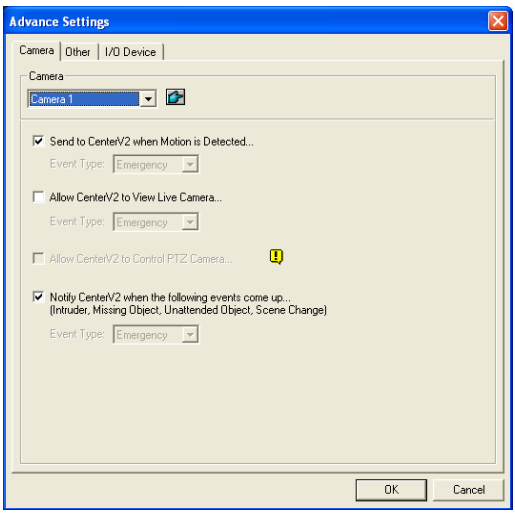


Figure 1-10

- **The Camera list:** Click the drop-down list to select the camera to be configured. Or you can click the **Finger** button to apply the settings to all cameras.
- **Send to Center V2 when Motion is Detected:** Sends notifications (video and text messages) to Center V2 when motion is detected. **Event Type:** To always notify Center V2 of motion event, select **Emergency**. To only notify Center V2 of motion event when an assigned input is triggered or within the established schedule, select **Normal**.

- **Allow Center V2 to View Live Camera:** Gives Center V2 the privilege to view your cameras at any time.
- **Allow Center V2 to Control PTZ Camera:** Gives Center V2 the privilege to control your PTZ cameras. Remember to properly set up camera mapping first. See *Mapping PTZ Cameras,* Chapter 1, *GV-DVR User's Manual* on the Software DVD.
- **Notify Center V2 when the following events come up:** Notifies Center V2 when any of these alert events occur: Intruder, Missing Object, Unattended Object, Scene Change, Crowd Detection, Advanced Missing Object, Advanced Unattended Object and Advanced Scene Change.

  Event Type: To always notify Center V2 of these alert events, select **Emergency**. If the subscriber wants Center V2 to get notified of these alert events only when an assigned input is triggered, select **Normal**.

Note: To set an input trigger or a schedule for the notification of **Normal** events, see *Security Service, [I/O Device]* later in this chapter.

Other

Define other communication conditions between GV-System and Center V2.

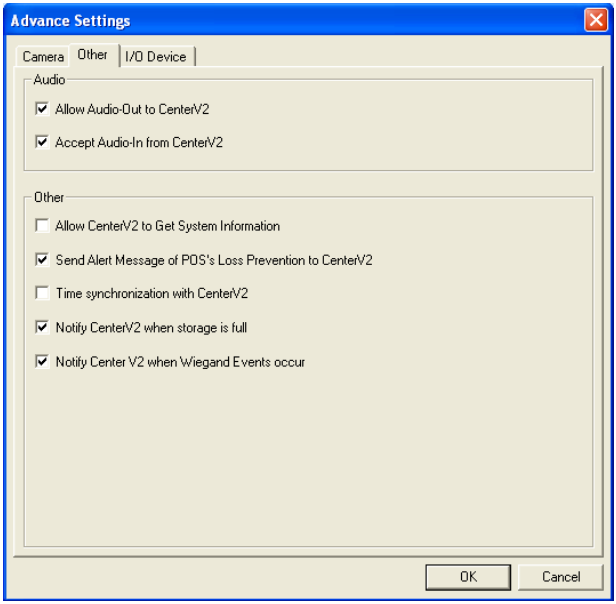


Figure 1-11

[Audio]

Applies any of these options here may generate privacy issues. Think before you make any selection.

- **Allow Audio-Out to CenterV2:** Allows Center V2 to listen to the audio from GV-System.
- **Accept Audio-In from CenterV2:** Allows Center V2 to use the talkback feature when emergency occurs.

[Other]

- **Allow Center V2 to Get System Information:** Allows Center V2 to get system information on your GV-System.
- **Send Alert Message of POS's Loss Prevention to Center V2:** Notifies Center V2 about the events of POS Loss Prevention.
- **Time synchronization with Center V2:** Enables the time increment/decrement of minutes and seconds at the subscriber site to match the time at the Center V2.
- **Notify Center V2 when the storage space was full:** Notifies the Center V2 when the subscriber's storage space is insufficient.
- **Notify Center V2 when Wiegand Event occurs:** This option is designed for the access control application with GV-Wiegand Capture. When the GV-System receives the card number from GV-Wiegand Catpure, the number can also be sent to the Center V2.

Note: When **Time synchronization with Center V2** is selected, the function of time synchronization will be activated as soon as the Center V2 is started up, and it will be re-activated every 12 hours.

I/O Device

The settings define which I/O condition to notify Center V2. To configure these settings, first disable the **Monitor all type events** option in Figure 1-8.

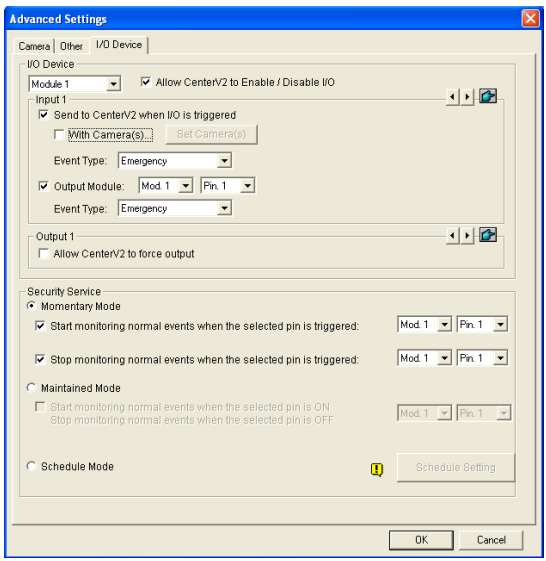


Figure 1-12

[I/O Device]

Notifies the Center V2 of when I/O devices are triggered. Use the **Arrow** buttons to configure each I/O device, or click the **Finger** button to apply to all I/O devices.

- **Allow Center V2 to Enable / Disable I/O:** Allows Center V2 manually arm/disarm any I/O devices at the subscriber's site without interrupting the monitoring.
  For example, when an alarm is triggered at the subscriber site, the

Center V2 operator can turn it off remotely before the security staff arrives at the site. Meanwhile, GV-System still remains on monitoring.

- **Send to Center V2 when I/O is Triggered:** Notifies Center V2 when any selected input is triggered.

  With Camera(s): Sends the camera video to Center V2 when the selected input is triggered. Click the **Set Camera(s)** button to assign cameras for the application.

  Event Type: If the subscriber wants Center V2 always to get notified of the input trigger, select **Emergency**. If the subscriber wants Center V2 to get notified of the input trigger only when an assigned input is triggered, select **Normal**.

  Right Arrow button: Sets the delay time to notify Center V2 of input trigger. This feature is only available when the **Normal** type is chosen.

  - **Exit Delay:** While the system is activated, this feature provides an interval of time for the subscriber to exit the premises. During this time, the specified input (e.g. an exit/entry door) is inactive. Once the exit delay expires, the input will be fully armed.
  - **Entry Delay:** While the system is activated, this feature provides an interval of time for the subscriber to entry the premises. During this time, the specified input (e.g. an exit/entry door) is inactive so that the subscriber can disarm the system. If the subscriber fails to do, once the entry delay expires, Center V2 will get notified of the input trigger.

- **Output Module:** Enables the assigned output module when the selected input module is triggered.

  For the example of Figure 1-12, when the I/O Device (Module 1, Input 4) is triggered, the Output (Module 1, Pin 3) will be activated simultaneously.

  Right Arrow button: Sets the delay time to trigger the assigned output module.

  Event Type: If the subscriber wants Center V2 always to get notified of the output trigger, select **Emergency**. If the subscriber wants

Center V2 to get notified of the output trigger only when an assigned input is triggered, select **Normal**.

Note:

1. To set an input trigger for the notification of **Normal** events, see *[Security Service]* below.
2. The delay settings in **Send to Center V2 when I/O is triggered** and **Output Module** allow you to enter your premises and disable input/output module before it is activated.

   To disable prior I/O settings, the subscriber may exit the connection to Center V2 or use the **Stop monitoring normal events when selected pin is triggered** feature in Figure 1-12.

- **Allow Center V2 to Force Output:** Allows Center V2 to manually force output devices of the subscriber to be triggered.

[Security Service] Notify the Center V2 server only when an input is on or when events occur within the defined schedule. Proceed to configure input and schedule settings.

- **Momentary Mode:** Pushbutton switches that are normally open and stay closed only as long as the button is pressed. Momentary switches allow turn-on or turn-off from multiple locations.

  For example, certain premises have a designated entry/exit door. When the staff enters the entry door, the system starts monitoring. When the staff leaves from the exit door, the system stops monitoring.
- **Maintained Mode:** Push-on/push off button switches that stay open until thrown, and then stay closed until thrown again. Maintained switches are convenient for only one switch location.

  For example, in the business hour when the door is opened, the system stops monitoring; in the non-business hour when the door is closed, the system starts monitoring.

- **Schedule Mode:** Sets a time schedule to notify Center V2 of the events that occur within the defined times. Click the **Schedule Setting** button to set special days and customize up to 4 time spans.

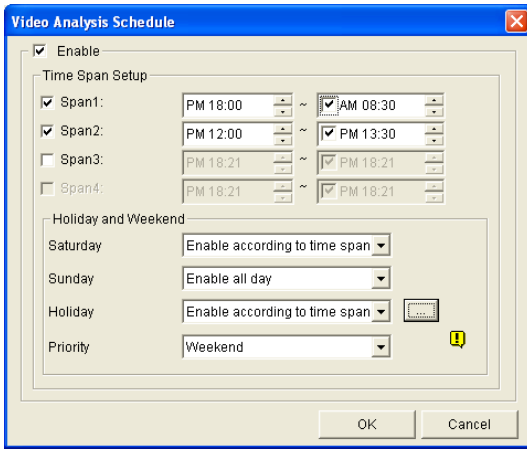


Figure 1-13

1.5.2 Setting Panic Button

You may set up a panic alarm button at your GV-System. In case of emergency, press the button immediately to send the associated video to Center V2.

To set up a panic alarm, select **Panic Button** from the Mode drop-down list in the Connect to Center V2 dialog box (Figure 1-8), click the **Configure** button and select **Advanced Settings**. This dialog box appears.

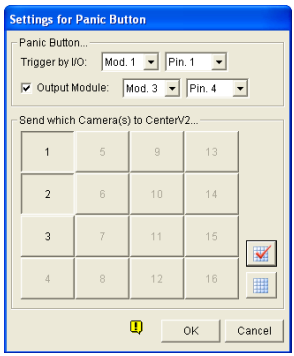


Figure 1-14

[Panic Button] Assigns an input device to be the panic alarm button.

- **Trigger by I/O:** Assigns an input module and a pin number.
- **Output Module:** Enables an assigned output module when the panic button is pressed.

  For the example of Figure 1-14, when the panic button (Module 1, Pin 1) is pressed, the output module (Module 3, Pin 4) will be triggered simultaneously.

[Send which Camera(s) to Center V2] Select which camera video should be sent to Center V2 when the panic alarm button is pressed.

1.5.3 Detecting Input Status

The feature is designed to monitor all inputs for a change of state whenever the subscriber starts the live monitoring through Center V2. A change from the previously defined state (N/O to N/C or N/C to N/O) will activate an alarm condition.

Click in the Connect to Center V2 dialog box (Figure 1-8). For details, see *Input State Detection*, Chapter 6, *GV-DVR User's Manual* on the Software DVD.

1.6 Live View

By default, live views are popped up on the Center V2 when events and motions are detected at the subscriber. You can also enable live views to be shown constantly on the Center V2.

To enable live view of any camera:

1. The GV-System needs to grant the Center V2 the privilege to allow live viewing. On the GV-System, click the **Network** button , select **Connect to Center V2**, click **Configure**, and select **Advanced Settings** and click the **Camera** tab. The Advanced Settings dialog box appears (Figure 1-10).
2. Select **Allow Center V2 to View Live Camera**.
3. To apply the settings to all the cameras, click the Finger button.
4. Connect the GV-System to the Center V2.
5. On the Center V2 window, right-click one camera under the subscriber and select **Live View**.

Figure 1-15

When a subscriber is in focus, you can enable live view to all its cameras.

1. Click a subscriber in the list and select **Focus on this subscriber only**.
2. Click the subscriber again and select **View All Cameras (Live)**.

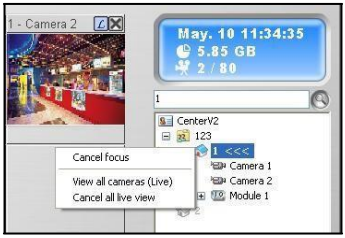
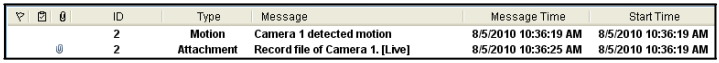


Figure 1-16

Note: You can enhance coloring on live images. See the **Enable Directdraw** option in the General Setting dialog box (Figure 1-53).

1.7 Recording

By default, the Center V2 records any events and motion detected at the subscriber. When the video is recorded, a message labeled with [Live] appears on the Event List.



	ID	Type	Message	Message Time	Start Time
	2	Motion	Camera 1 detected motion	8/5/2010 10:36:19 AM	8/5/2010 10:36:19 AM
	2	Attachment	Record file of Camera 1. [Live]	8/5/2010 10:36:25 AM	8/5/2010 10:36:19 AM

Figure 1-17

Note: The default path of recorded files is :\\Center V2\Data\subscriber\Live

You can also start recording manually and instantly when you see any suspicious live images. To start recording manually:

1. To start recording manually, the live view must be enabled already. See *1.6 Live View*.
2. To start recording, move your cursor to the live view and click the icon on the channel heading.
3. To stop recording, move your cursor to the live view and click the icon on the channel heading.
4. A message labeled with [Manual] appears on the Event List.

	ID	Type	Message	Message Time	Start Time
	2	Attachment	Record file of Camera 1. [Manual]	8/5/2010 10:36:11 AM	8/5/2010 10:35:55 AM

Figure 1-18

Note: The default path for recordings started manually is :\\Center V2\Data\subscriber\Manual

For related recording and storage settings, see *1.15.4 Recording Settings*.

1.8 Playback

You can play back the video events saved on the Center V2 by clicking the attachments on the Event List, or play back the video events recorded on the remote subscriber.

1.8.1 Attachment Playback

When you click the attachment of an event, the EZ player will appear for playback operations.

Figure 1-19

No.	Name	Description
1	Tools	Adds effects to the image, including the options of Brightness, Contrast, Smooth, Sharpen, Grayscale and Undo. The other options include Copy, Save As (an image or an .avi file), Print and Setup.
2	Zoom In	Zooms in the video.
3	Zoom Out	Zooms out the video.

No.	Name	Description
4	Move	Moves the EZ Player window by clicking and holding on this button.
5	Play	Plays the video file.
6	Pause	Pauses the video file.
7	Stop	Stops the video file.
8	Previous Frame	Goes to the previous frame of the video file.
9	Next Frame	Goes to the next frame of the video file.
10	Top Frame	Goes to the beginning of the video file.
11	End Frame	Goes to the end of the video file.
12	Speed Control	Controls the play speed.
13	Right-Click Menu	■ **PIP View:** Refers to Picture in Picture. You can zoom in on the video. See *4.17 PIP and PAP View*. ■ **PAP View:** Refers to Picture and Picture. You can create a split video effect with multiple close-up views on the video. See *4.17 PIP and PAP View* ■ **Wide Angle Lens Dewarping:** Corrects image distortion. See *Adjusting Distorted Views* in this section. ■ **Fit Window Size:** Adjusts image size to fit the screen.

Changing Playback Mode

You can choose to play back video one by one in the same player or separate players simultaneously.

1. Click the **Tools** button on the EZ player (No.1, Figure 1-19), and click **Setup** from the pop-up menu. This dialog box appears.

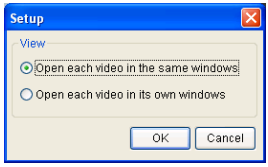


Figure 1-20

2. To play back one video at one time in the same player, select **Open each video in the same windows**.
3. To play back multiple videos in separte players simultaneoulsy, select each video in its own windows.

Adjusting Distorted Views

When viewing videos through EZ player, images may be curved near the corners. Use the Wide Angle Lens Dewarping feature to correct image distortion.

1. On EZ player, right-click the video image and select **Wide Angle Lens Dewarping** to enable this function.

2. Right-click the video image again and select **Wide Angle Lens Dewarping Settings**. The dialog box appears.

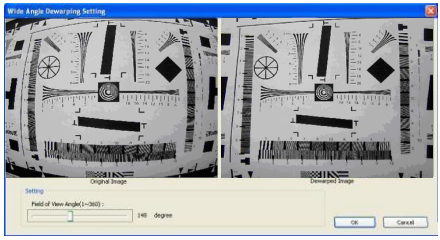


Figure 1-21

3. Move the slider at the bottom to correct the degree of distortion. The adjusted view is shown on the right.

4. Click **OK** to complete.

1.8.2 Remote Playback

You can play back the video events recorded on the remote subscriber through network connection. The function is critical when you do not want to enable recording on the Center V2 but want to retrieve the videos for reference.

For the remote playback to work, the following function must already be enabled on the subscriber:

- GV-System: Remote View Log Service
- GV-Video Server: View Log Server
- GV-Compact DVR: View Log Server

Note: The Remote View Log option is not available for the events already having recorded files on the Center V2 (the events with attachments).

---

1. Double-click an event without having the attachment in the Event List. This dialog box appears.

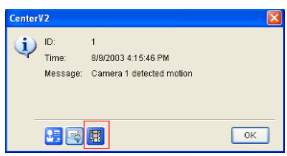


Figure 1-22

2. Click the **Remote Playback** button. This dialog box appears.

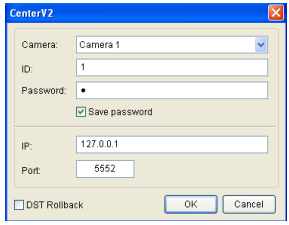


Figure 1-23

3. Select a camera. Type the ID, password and IP address of the connected subscriber. Keep the port as default value 5552 or modify it to match the related port on the subscriber. If you want to play the video events recorded during the Daylight Saving Time period, select **DST Rollback**. Click **OK**. This player appears.

Figure 1-24

4. For the controls on the Remote Playback window, see *4.16 Instant Playback*.

1.9 Two-Way Audio

The Center V2 operator can perform two-way audio with subscribers.

Note: To have two-way audio with the Center V2, the subscriber must use GV-System version 8.0 or later.

1. The GV-System needs to grant Center V2 the privilege to allow two-way communications. On the GV-System, click the **Network** button, select **Connect to Center V2**, click **Configure**, select **Advanced Settings**, and click the **Other** tab. The Advanced Settings dialog box appears (Figure 1-11).
2. Under the Audio section, select **Allow Audio-Out to Center V2** and **Allow Audio-In from the Center V2**. Click **OK**.
3. Connect the GV-System to the Center V2.
4. Move your cursor to the live view. The **Microphone** and **Audio** icons appear on the bottom left corner.

Figure 1-25

5. To speak to the subscriber, click the **Microphone** icon to turn it on. The control panel appears.

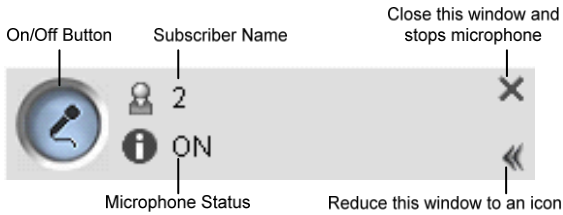


Figure 1-26

6. To listen to audio from the subscriber, click the **Audio** icon to turn it on. The control panel appears.

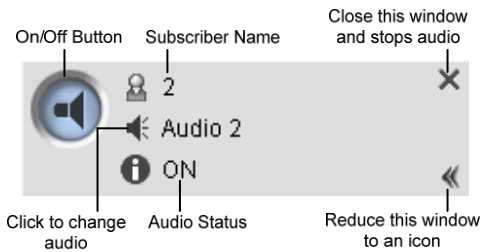


Figure 1-27

7. To switch to another subscriber, click the subscriber icon on the Microphone or Audio control panel, type the subscriber's ID in the Search Account dialog box and click **GO**.

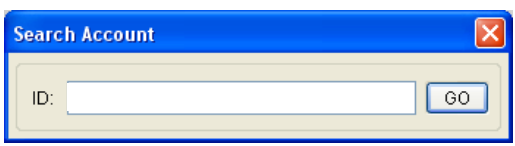


Figure 1-28

1.10 Advanced Monitoring and Management

This section describes how to monitor and manage subscribers in these parts: (1) Showing and Controlling I/O Status, (2) Camera/Audio Control, (3) Simple Microphone and Audio Panels (4) Camera Monitor (5) Viewing Subscriber Information (6) Subscription Control.

1.10.1 Showing I/O Status

You can view the status of input devices at the subscriber's site, as well as forcing the outputs to be triggered.

To allow the Center V2 to control the I/O devices, the subscriber must enable **Allow Center V2 to Enable/Disable I/O** and **Allow Center V2 to Force Output** first. For the two options, see Figure 1-12.

On the Subscriber List (No. 4, Figure 1-1), right-click one online subscriber, and select **Show I/O Status** to display this window.

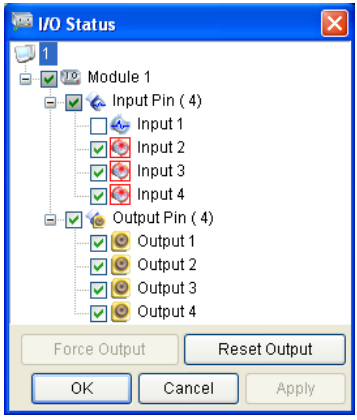


Figure 1-29

[Module] Shows the module's I/O status.
[Input] Shows the input device status. The blue icon indicates the input is deactivated; the red lightening icon indicates the input is activated.
[Output] Shows the output device status or to manually force an output or reset an output installed at the subscriber site.
To manually force an output to be triggered, click a desired output and click the **Force Output** button. Or select a desired output pin and click the **Force Output** button. To reset an output, click a desired output pin and select **Reset**. Or click the **Reset Output** button and select the desired module and output pin.

1.10.2 Controlling I/O Devices

The Center V2 operator can manually arm or disarm the physical I/O devices from subscribers without interrupting the monitoring. For this, the subscriber must give the privilege first. See the **Allow Center V2 to Enable/Disable I/O** option in Figure 1-12.

Note: This function also supports the client GV IP devices of these firmware versions:

GV-Compact DVR: Firmware V1.43 or above

GV-IP Camera: Firmware V1.05 or above

GV-Video Server: Firmware V1.45 or above

1.10.3 Camera/Audio Control Window

The Camera/Audio Control window allows two-way audio between CenterV2 and the subscriber, as well as PTZ control.

On the Subscriber List (No. 4, Figure 1-1), right-click one online subscriber and then select **Camera/Audio Control** to display this window.

Figure 1-30

The controls on the Camera/Audio Control:

No.	Name	Description
1	Change Camera	Switches to another camera of the same subscriber.
2	Change Size	■ **Size:** Changes the size of the live video. The size choices are only available when the video resolution is higher than 320 x 240. (see ***Image Size*** in *Subscriber Settings)* ■ **Defog:** Enhances image visibility. ■ **Stabilizer:** Stabilizes live images. ■ **Stream1/Stream2:** Switches video streams. ■ **PIP View:** Refers to Picture in Picture. You can zoom in on the video. See *4.17 PIP and PAP View*. ■ **PAP View:** Refers to Picture and Picture. You can create a split video effect with multiple close-up views on the video. See *4.17 PIP and PAP View* ■ **Fisheye:** Enables a 360 degree view. This function only works with a Fisheye Camera. ■ **Wide Angle Lens Dewarping:** Corrects image distortion. See *Adjusting Distorted Views* in *1.8 Playback*.
3	Audio	Accesses the audio from the subscriber.
4	Microphone	Enables speaking to the subscriber.
5	Setting	Changes the audio and video settings
6	PTZ	Activates the PTZ control by selecting PTZ Panel or PTZ Automation.
7	Snapshot	Takes the snapshot of the displayed live video.
8	Zoom	Enlarges the video by selecting 1.0x, 2.0x and 3.0x.

Note: If the subscriber uses GV-System version 8.2 or earlier, an older style of Camera /Audio Control Window will appear. If the GV-System version V8.3 or later is in use, a new window will appear.

Window for V8.2 or earlier

Window for V8.3 or later

Figure 1-31

1.10.4 Camera Monitor

Use the Camera Monitor window to define the following:

- Enable and disable live display
  (The subscriber must give the privilege first. See the **Allow Center V2 to View Live Camera** option in Figure 1-10)
- Define the interval between incoming events triggered by motion detection and video lost

1. On the Subscriber List (No. 4, Figure 1-1), right-click one online subscriber and select **Camera Monitor**.
2. The Camera Monitor window appears.

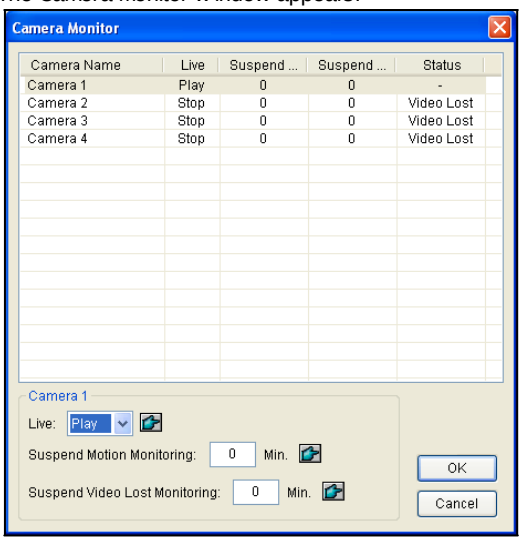


Figure 1-32

- **Live drop-down list:** Highlight one camera, and select **Play** (enable live display) or **Stop** (disable live video).
- **Suspended Motion Monitoring:** Highlight one camera, and set the interval between incoming events triggered by motion detection. Alternatively, you can right-click one live camera channel on the monitoring window and select **Suspend** for the same setting.
- **Suspend Video Lost Monitoring:** Highlight one camera, and set the interval between incoming events triggered by video lost.
- **Status column:** Displays the status of video lost from cameras or disconnection.

3. Click **OK** to apply the settings.

If the camera is enabled for live display, you will see in the upper right corner of its monitoring window; otherwise, you will see .

1.10.5 Viewing Subscriber Information

To view the general information about your subscribers, click the **Host Information** button (No. 6, Figure 1-1) on the Center V2 window to display the Host Information window. Choose a subscriber from the list, and click the **View Information** button to view its related information.

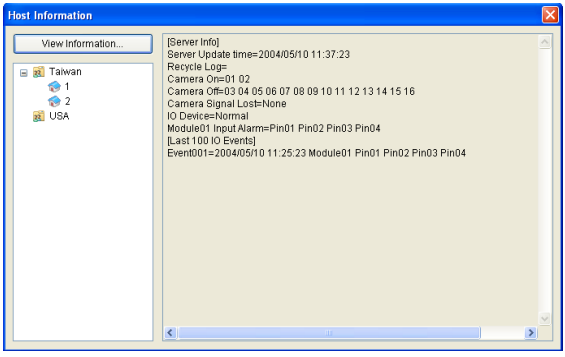


Figure 1-33

For the feature, the subscriber must grant the privilege to Center V2. See the **Allow Center V2 to Get System Information** option in Figure 1-11.

1.10.6 Disabling Subscription

The Center V2 operator can disable its services to an individual subscriber when subscription expires. In the Address Book (Figure 1-2), right-click one subscriber and select **Disable**. To restore the subscription, right-click that subscriber again and select **Enable**.

1.11 Subscriber Schedule

The Center V2 operator can create schedules to monitor subscription status. When subscribers don't log in Center V2 on the programmed time, the operator and subscribers will get notified.

- When a subscriber doesn't log in Center V2 on time, this message will appear on the Event List: Service hour engaged; still waiting for subscriber to log in.

  When a subscriber logs out suddenly during a service time, this message will appear: Unexpected subscriber logout during service times.

- To activate the computer and output alarm to notify the operator while an SMS and E-mail message being sent out to a subscriber, use the **Notification** feature. For details, see Notification Settings later in this chapter.

1.11.1 Setting a Schedule

1. On the Center V2 window, click the **Accounts** button (No. 7, Figure 1-1). The Address Book window appears.
2. Highlight one subscriber, and click the **Subscriber Schedule** (No. 7, Figure 1-2). The Schedule window appears.

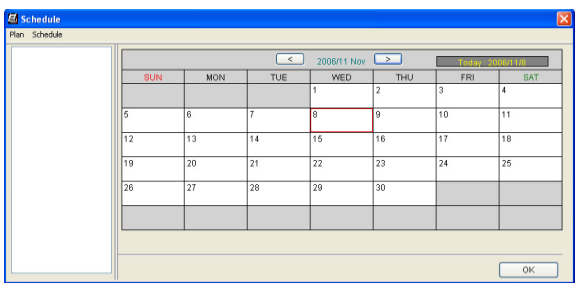


Figure 1-34

3. On the Schedule w indow menu, click **Schedule**, select **Setup Wizard** and follow the Wizard instructions.
4. When the follow ing dialog box appears during the instructions, drag the mouse over the Login timeline to define the Start and End time.

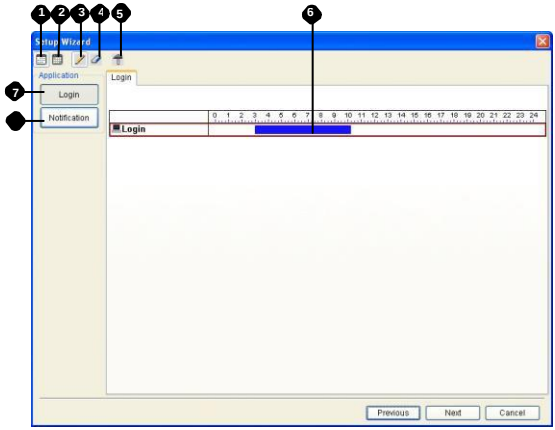


Figure 1-35

The controls on the Setup Wizard:

No.	Name	Description
1	Include	Displays task time.
2	Exclude	Displays non-task time.
3	Add	Draw s task time.
4	Erase	Erases task time.
5	Advanced Setting	Selects alert notification methods. See *Scheduling Alert Notification* later.
6	Timeline	Defines the time periods.
7	Login	Displays the Login timeline.
8	Notification	Displays the E-mail and SMS timelines.

5. Click **Next** w hen you finish the schedule. The Setup Wizard dialog boxes pops up again, and then click **Finish** to exit.

1.11.2 Scheduling Alert Notification

E-mails and SMS messages can be sent out within the scheduled period of time. The Schedule will work with your E-Mail and SMS settings to all alert conditions. To set up alert conditions, see *Notification Settings* later in this chapter.

Note: Once you enable the schedule function, you will not be notified when events occur outside the scheduled period of time.

---

1. On the Schedule window, double-click an established plan. A plan dialog box similar to Figure 1-35 appears.
2. Click the **Advanced Setting** button (No. 5, Figure 1-35). The Advanced Setting dialog box appears.
3. Expand the **Notification** folder, and select **SMS** or **E-Mail** to be scheduled.
4. On the plan dialog box, click the **Notification** button (No. 8, Figure 1-35), drag the mouse over SMS and / or E-mail timelines to define the Start time and End time to send out alerts.

1.12 Alarm Report

For every event, the Center V2 operator can generate a report to evaluate certain conditions.

1.12.1 Creating an Alarm Report

1. In the Event List w indow, select an event and click on the report column (No. 15, Figure 1-1). This dialog box appears.

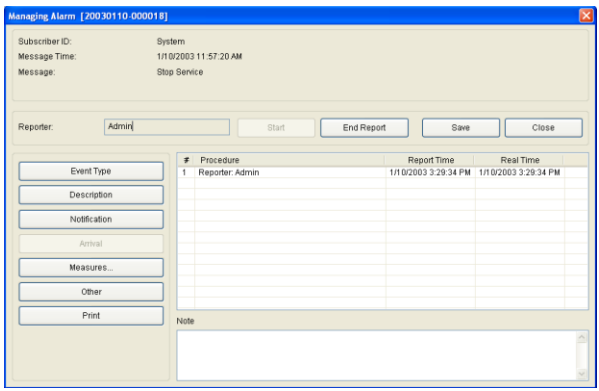


Figure 1-36

2. In the Reporter field, type the name, and click **Start** to begin the report.
3. There are 6 report categories. Click the desired category tabs for report.
   - **Event Type:** Select a type to classify the event.
   - **Description:** Select a description for the event.
   - **Notification:** Select the authority being notified, and type the notified time.

- **Arrival:** The button becomes available after you select a notified authority. Type the arrival time of the authority.
- **Measures:** Select the measure taken to deal w ith the event.
- **Other:** The button is available only w hen the e-mail and /or SMS alert are configured.
- **Print:** Prints out the alarm report.

4. When you finish the report and w ill not change the contents, click the **End Report**. Or click **Save** to edit later.

1.12.2 Editing Alarm Report Categories

The items in each category of the Alarm Report can be customized and edited to meet your needs. The changes made here will be available for each report.

1. On the Center V2 window, click the **Preference Settings** button (No.8, Figure 1-1), and select **Customize Alarm Report**. This dialog box appears.

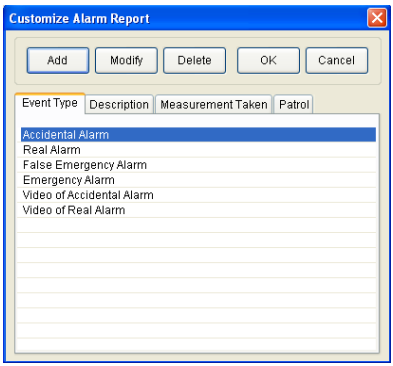


Figure 1-37

2. Click the desired category tab (**Event Type**, **Description**, **Measurement Taken**, and **Patrol**) to make the necessary changes.
3. Click **OK** to save the changes.

1.12.3 Printing Alarm Reports

You can print out the alarm reports along with filtered logs.

1. To filter the logs with alarm reports, click the **Tools** button (No.5, Figure 1-1), select **View Event Log**, and click the **Filter** button. The Filter window appears.
2. Click the **Clipboard** icon and select the type of alarm report from the drop-down list. For details, see *Filtering the Event Log* in *1.11 Event Log Browser*.
3. Click **OK**. The search results will be displayed in the Event Log Browser window.
4. To print out the alarm reports along with the search results, click the **Page Setup** button (No.8, Figure 1-46), select **Print Managing Alarm Report** and click **OK**.
5. Click the **Print** button (No. 9, Figure 1-46). Find the alarm reports in the last part of the printouts.

Also see *Printout Settings* in *1.11 Event Log Browser*.

1.13 Event List

1.13.1 Marking the Events with Colorful Flags

The flags of various colors are provided to distinguish different events. You will find them useful not only when browsing in the Event List but also when using the Filter function to sort out the desired events.

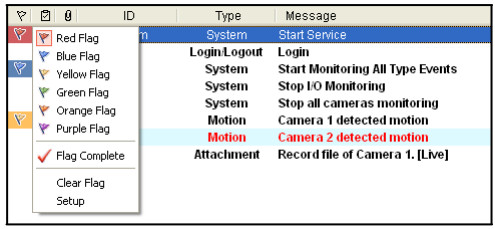


Figure 1-38

You can name the colorful flags with the provided texts or change the texts to meet your needs.

1. On the Event List window, select one event, and right-click in the flag column. The flag list appears (Figure 1-38).
2. Select **Setup**. This dialog box appears.

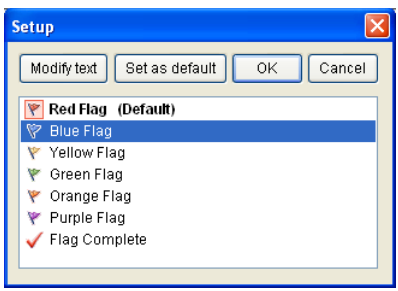


Figure 1-39

3. Select the desired flag, and then click the **Modify text** button. A list of text options appears.
4. Select one desired text (Pending, Assigned, In Process, Progressed, Resolve and Reject) or select **User Define** to customize your own flag text.

1.13.2 Using the Event Tabs

On the bottom of the Center V2 window, events are sorted under different tabs according to the type. You can utilize these tables to quickly monitor events by type and configure the **Customized Event** tab which contains self-chosen event types.

Note: This feature is only supported by the Professional version.

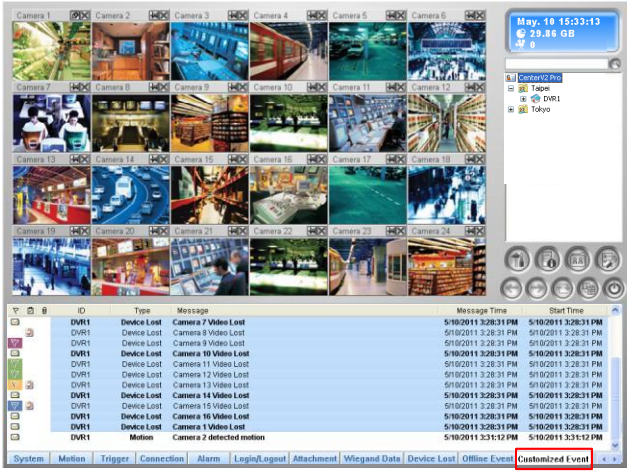

Camera 1
Camera 2
Camera 3
Camera 4
Camera 5
Camera 6
Camera 7
Camera 8
Camera 9
Camera 10
Camera 11
Camera 12
Camera 13
Camera 14
Camera 15
Camera 16
Camera 17
Camera 18
Camera 19
Camera 20
Camera 21
Camera 22
Camera 23
Camera 24
May. 10 15:33:13
29.86 GB
0
CenterV2 Pro
Tapei
DVR1
Tokyo
ID
Type
Message
Message Time
Start Time
DVR1 Device Lost Camera 7 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 8 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 9 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 10 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 11 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 12 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 13 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 14 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 15 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 16 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Device Lost Camera 1 Video Lost 5/10/2011 3:28:31 PM 5/10/2011 3:28:31 PM
DVR1 Motion Camera 2 detected motion 5/10/2011 3:31:12 PM 5/10/2011 3:31:12 PM
System
Motion
Trigger
Connection
Alarm
Login/Logout
Attachment
Wiegand Data
Device Lost
Offline Event
Customized Event

Figure 1-40

Configuring the Event Tabs

All the event tabs are enabled by default. You can also disable the unwanted tabs.

1. On the Center V2 window, click the **Preference Settings** button and select **My Favorite Events**. A sub-menu appears.

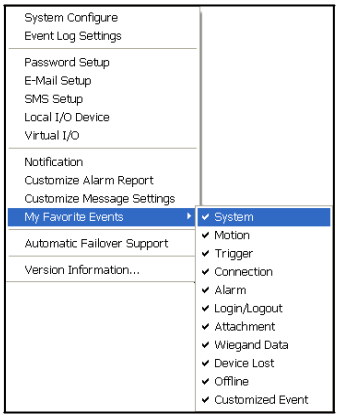


Figure 1-41

2. Unselect the event tab as required.

Setting up the Customized Event Tab

You can also configure the **Customized Event** tab which groups the selected event types under a single tab. With only a click of the Customized Event tab, you can monitor the desired events instantly.

1. On the Center V2 window, click the **Preference Settings** button and select **Customize Message Settings**. The Customize Message Settings dialog box appears.

2. Select an event from the left and select **Add to Customized Event Tab**.

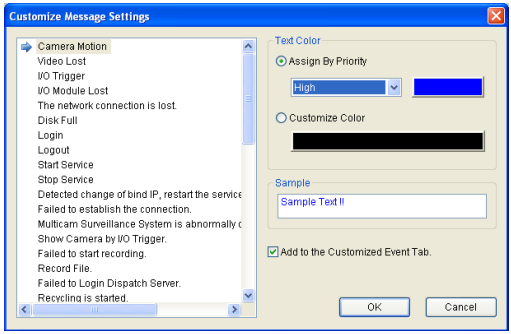


Figure 1-42

3. To view the customized events, select the **Customized Event** tab on the event category of the Center V2 window.

Displaying the Event List on Another Monitor

If the Center V2 is equipped with multiple monitors, you can assign a particular event type to display on another monitor. Right-click the desired event tab, select **Display on Another Monitor** and select a monitor for display.

Figure 1-43

1.13.3 Setting Alert Levels of Event Messages

You can assign an alert level to each event type for monitoring and management purposes. Each alert level can be distinguished by color. You can customize the color for each alert level or assign a color exclusively for a particular event type.

Note: This feature is only supported by the Professional version using a GV-USB dongle.

Figure 1-44

1. On the Center V2 window, click the **Preference Settings** button and select **Customize Message Settings**. The Customize Message Settings dialog box appears.

2. On the left, select an event type you wish to configure.

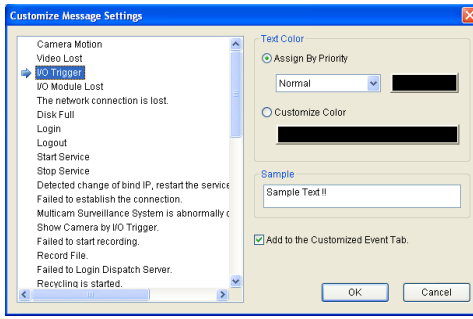


Figure 1-45

3. To assign an alert level, select **Using Priority Color** and choose from the drop-down list. To change the color for this alert level, click the color box and select a desired color.
4. To customize the color of this event type, select **Using Custom Color** and click the color box to assign a desired color.
5. Click **OK** to complete.

1.14 Event Log Browser

The Event Log Browser allows you to locate a desired event coming from subscribers. On the Center V2 window, click the **Tools** button (No. 5, Figure 1-1) and select **View Event Log** to display the following window.

Tip: You can quickly access the Event Log of a specific subscriber, instead of filtering all events. Right-click one subscriber on the Subscriber list (No. 4, Figure 1-1), select Event Log and then click a desired log type.

Figure 1-46

The buttons on the Event Log Browser:

No.	Name	Description
1	Open	Opens an event log.
2	Reload	Refreshes the event log manually
3	Start / Stop Synchronous EventLog	Refreshes the event log automatically.
4	Filter	Defines the search criteria.
5	Refresh the Filter Result	Refreshes the filter result.
6	Event Chart	Provides the daily, weekly and monthly statistical charts based on different criteria.

No.	Name	Description
7	Backup	Exports the current event list and video files.
8	Page Setup	Creates a header and footer for the printout of the event list.
9	Print	Prints the current event list.
10	Exit	Exits the browser.

1.14.1 Opening the Event Log

Click the **Open** button (No. 1, Figure 1-46) to launch the following Open Database dialog box. Define a time period and select the type of database. If you want to open the logs created by the system, select **System Log**; if you want to open the logs you have backed up in a local drive or CD/DVD, select **Backup Log**. Then assign the log path. After clicking **OK**, the events matching the search criteria will be loaded to the Event Log Browser.

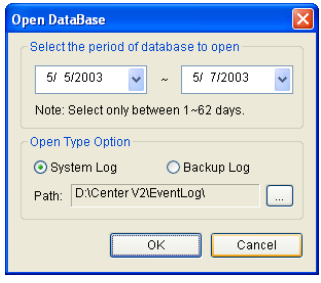


Figure 1-47

Note: By default, the displaying period of time is one day, the type of database is System Log and the log path is at:\Center V2\EventLog. The default displaying period of time and log path can be modified by using the Event Log Settings (Figure 1-51).

For details on backing up logs, see *Backup Settings* later in this chapter.

1.14.2 Filtering the Event Log

You can filter log events on the defined criteria. Click the **Filter** button (No. 4, Figure 1-44) to bring up the Filter window.

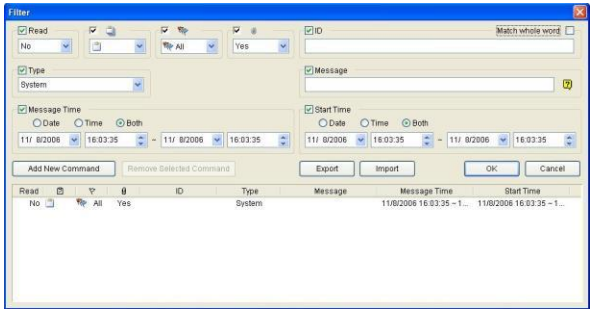


Figure 1-48

- **Read:** Searches for the events you have opened on the Event List that is at the bottom of the Center V2 window.
- **Clipboard:** Searches for the events with alarm reports. The icon indicates the report has been completed. The icon indicates the report has not been completed or ended. The All icon indicates the above two types of reports.
- **Flag:** Searches for the flagged events.
- **Clip:** Searches for the events containing video attachments.
- **ID:** Searches for the events from a specific subscriber.
- **Type:** Searches for the events based on the nature of events.
- **Message:** Searches for the events by keywords.
- **Message Time:** Searches for the events by the arriving time or date to Center V2.
- **Start Time:** Searches by the starting time of the events occurred at the subscriber site.

Applying Multiple Filters

This option allows you to define several filter commands for search. Click the **Add New Command** button to add a new filter command. When you click **OK**, all events matching the defined commands will be listed on the Event Log Browser.

Removing Filters

Select the filter command you wish to remove from the filter list, and then click the **Remove Selected Command** button to remove it.

1.14.3 Backing up the Event Log

You can back up logs to a local drive, or export them to CD and DVD.

1. On the Event Log Browser, click the **Backup** button (No.7, Figure 1-46). This dialog box appears.

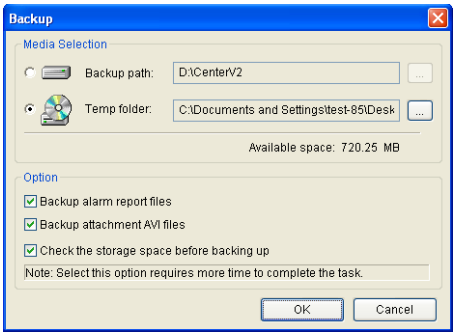


Figure 1-49

2. To back up logs to a local drive, select **Backup Path**, click the **[…]** button and assign a location where you want to save the files.
3. To export logs to CD and DVD, select **Temp folder**, click the **[…]** button and assign a location for temporary storage of backup data.
4. Select whether you want to back up alarm reports and AVI files along with logs.
5. Click **OK**.
6. If you select **Temp folder**, this dialog box appears for further setup.

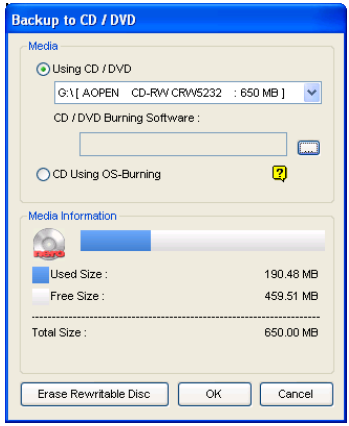


Figure 1-50

- **Using CD/DVD:** Click to back up files to the CD or DVD using the third-party software. Click the **[…]** button to assign the desired burning software (.exe file).
- **CD Using OS-Burning:** This option is only available when you use Windows XP, Server 2003, Vista or Windows 7. It burns files to the CD or DVD using the inbuilt software of the operating system. Note that your hard disk needs at least 1 G buffer space.

1.14.4 Setting the Event Log

On the Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-1), and select **Event Log Setting** to display the following dialog box:

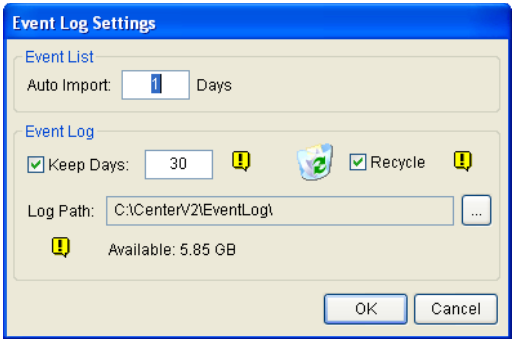


Figure 1-51

[Event List]

- **Auto Import:** Specify the number of days for which the logs will be loaded to the Event List at the bottom of the Center V2 window (Figure 1-1) and the Event Log Browser (Figure 1-46).

[Event Log]

- **Keep Days:** Select this option and type the number of days to keep log files. Otherwise clear the option to keep log files until the Recycle starts or the storage space is full.
- **Recycle:** Delete the files of the oldest day when storage space is lower than 500 MB.
- **Log Path:** Click the **[...]** button to assign a storage path.

1.14.5 Printing the Event Log

You can print out the filtered log events, define footers and headers for each printout, and choose whether to attach the Alarm Report with the data logs.

1. On the Event Log Browser, click the **Page Setup** button (No. 8, Figure 1-46) to display this dialog box.
2. Select the options and type the information that you want to print out.
3. Click **OK** to apply the settings.
4. Click the **Print** button (No.9, Figure 1-46) to start.

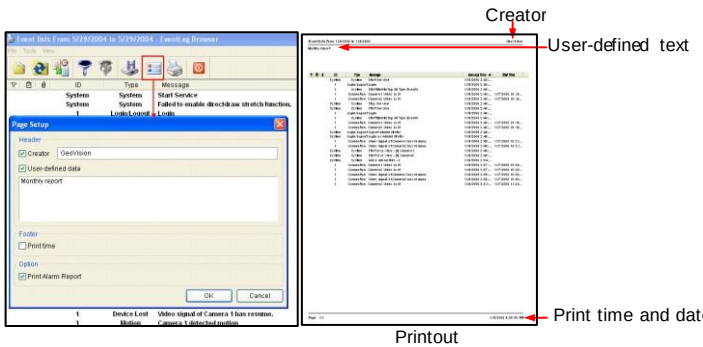


Figure 1-52

1.15 System Configuration

On the Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-1), and select **System Configure** to display the following Preference window. This window contains these tabs: (1) General, (2) Layout, (3) Network, (4) Record and (5) Dispatch Server.

1.15.1 General Settings

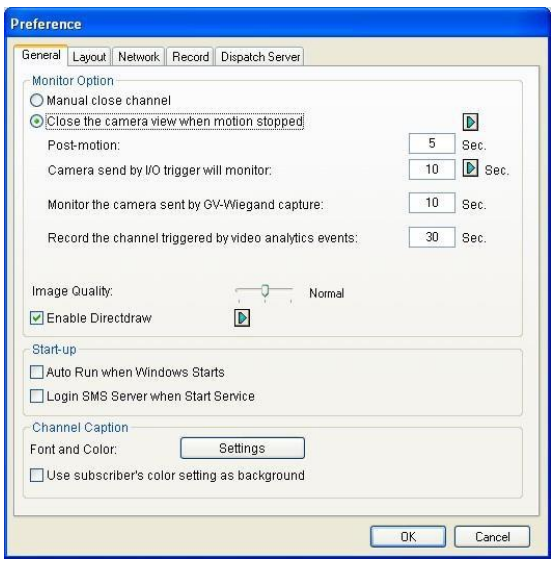


Figure 1-53

[Monitor Option]

- **Manual close channel:** Closes the triggered camera view manually.
- **Close the camera view when motion stopped:** Closes the triggered camera view automatically when motion stops.

- **Post Motion:** Specifies the duration of the camera view remaining on the monitoring window after motion stops.
- **Camera send by I/O trigger will monitor:** Specifies the duration of the camera view remaining on the monitoring window when an I/O device is triggered.
  To keep the camera view remaining on the monitoring window even after the alarm is finished, click the right-arrow button, and uncheck **Latch Trigger**. Then the camera view will remain on the monitoring window for the specified time. For example, the alarm is triggered for 5 minutes and you set 10 minutes, which means the total display time will be 15 minutes.
- **Monitor the camera sent by GV-Wiegand Capture:** Specifies the duration of the camera view remaining on the monitoring window when the access control system, connected to GV-Video Server, is triggered. For details, see *Chapter 8 CMS Configurations* in the *GV-Video Server User's Manual*.
- **Record the channel triggered by video analytics events:** Sets the total recording time for a video analytics event. The default length is **30** seconds. The valid range is **3** to **600** seconds.
- **Image Quality:** Adjusts the video quality. Moving the slide bar to the right side for the better quality and the bigger image size.
- **Enable Directdraw:** Enables an enhanced image performance for live video. To enhance coloring, click the right-arrow button, select **Use Colorful Mode** and restart the Center V2 program to take it effect.

[Start-up]

- **Auto Run when Windows Starts:** Automatically runs Center V2 when Windows starts.
- **Login SMS Server when Start Service:** Automatically logs in SMS Server when Center V2 starts. You will be prompted to type the IP address, Port, ID and Password of the SMS server.

[Channel Caption]

- **Font and Color:** Click the **Settings....** button to change the font and color of the captions.
- **Use the subscriber setting color as background:** Checks the option to apply the caption settings.
  For details, see *Channel Heading* earlier in this chapter.

1.15.2 Layout Settings

This feature transfers the Event List window to a separate monitor while the monitoring windows are displayed in the current monitor. For the application, your VGA card needs to support Twin View, and your Windows desktop must be properly set up for the display across two computer monitors.

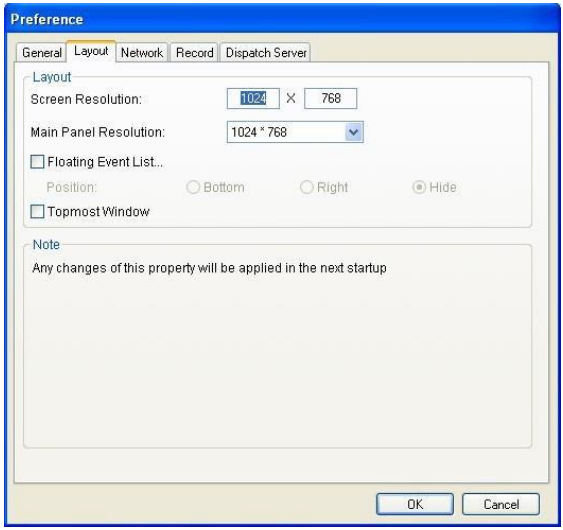


Figure 1-54

- **Screen Resolution:** Detects the current screen resolution on your PC.
- **Main Panel Resolution:** Sets the Center V2 panel resolution to 1024 x768, 1280 x1024, 1600 x 1200, 1680 x 1050, 1920 x 1200, 1920 x 1080, 1280 x 800 or 1440 x 900. The new resolution is effective after next login.
- **Floating Event List:** Moves the Event List window to a separate window at the bottom, the right side or hide the window.

Note: To view the hidden Event List, click the **Tools** button (No.5, Figure 1-1) and then select **Maximize Event List** to display the Event List.

- **Topmost Window:** Keeps the Center V2 window on top of other window or dialog box.

1.15.3 Network Settings

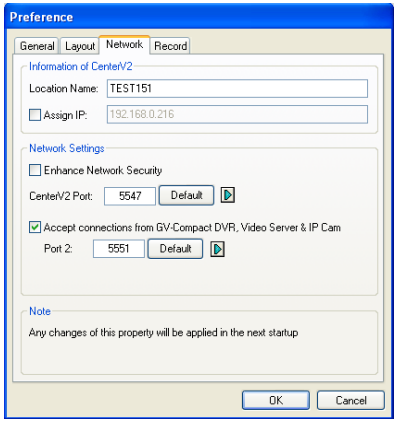


Figure 1-55

- **Location Name:** Indicates the name of the PC where Center V2 is installed.
- **Assign IP:** When your router or system has more than one IP address, you can assign an IP address for the communication between GV-System and Center V2.
- **Enhance Network Security:** Applies enhanced security for Internet. When the feature is enabled, all subscribers using earlier version than version 7.0 cannot access the Center V2 anymore.
- **Center Port:** Indicates the communication port used by the Center V2. The port should match the one in Figure 1-7. To automatically configure the port on your router by UPnP technology, click the **Arrow** button. For details on UPnP settings, see *UPnP Settings, Appendix*.
- **Accept the Connection of GV-Compact DVR, Video Server & IP Cam:** Enables the connection to GV IP devices. For connecting with GV IP devices, the default port is **5551**; or you can modify it to match the Center V2 port on GV IP devices. For details, see their separate *User's Manuals*.

1.15.4 Recording Settings

In Recording Settings, you can configure storage locations, storage durations and recycling conditions of video recordings.

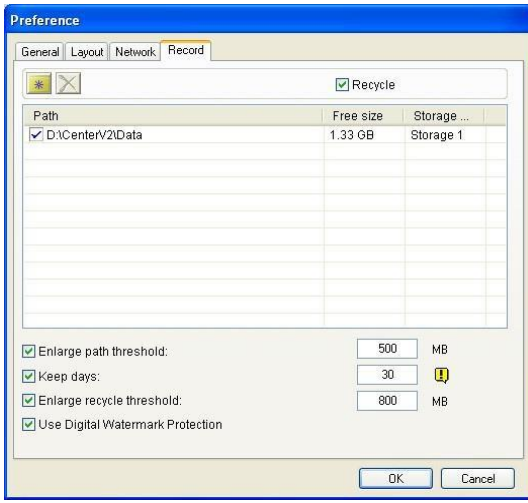


Figure 1-56

- **Recycle:** When 1 to 49 channels are connected to the Center V2 Server and the storage space falls short of the recycle threshold 800 MB (default recycle threshold), 400MB of old files will be deleted. This recycle size increases by 100 MB with every addition of 50 channels. That is, with 50 to 99 channels connected, 500 MB of the old files will be deleted as the storage space falls short of the recycle threshold. See the following table for the corresponding recycle size:

No. of Channels Connected to Center V2 Server	Recycle Size (MB)
1 ~ 49	400
50 ~ 99	500
⋮	⋮
800	1500

- **Storage Group:** You can store the recordings of different subscriber at separate locations using the storage group feature. For details, see the following section *Storing Video Files in Separate Locations*.
- **Enlarge Path Threshold:** When the space in a storage path falls short of the path threshold (500 MB by default), recordings are saved to the next path of the same storage group. To enlarge the path threshold, select this option and specify the path threshold. To add paths, see the following section *Storing Video Files in Separate Locations*.
- **Keep Days:** The recordings are stored for the specified number of days before they are recycled.
- **Enlarge Recycle Threshold:** When the current storage path falls short of the recycle threshold (800 MB by default), recycle starts. To enlarge the recycle threshold, select this option and specify the recycle threshold.
- **Use Digital Watermark Protection:** Protects the recording from being tampered by embedding digital watermarks in video streams. To verify the authenticity of the recording, see *Watermark Proof*, *Appendix*.

Storing Video Files in Separate Locations

You can keep video files from each subscriber in separate locations using the storage group feature. Follow the steps below to set up storage groups and then assign each subscriber with a storage group.

To add storage paths and set up storage groups:

1. Add storage locations using the **Add New Path** button .
2. Assign a storage group to each path using the drop-down list.

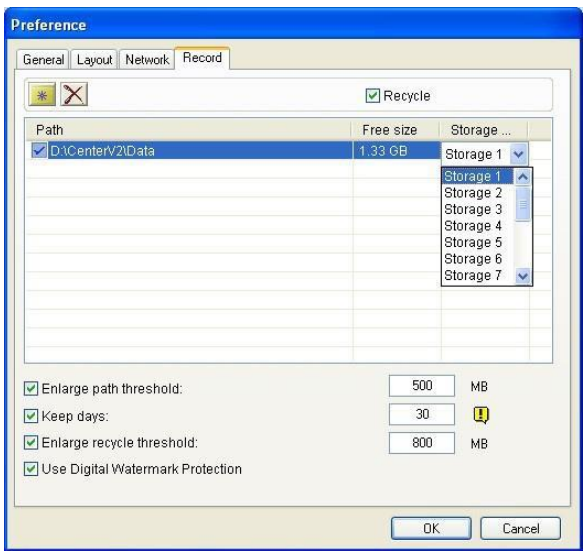


Figure 1-57

Important: The system will first save video files to the path that appears on the top of the list, and switch to the next path (of the same group) as soon as the current location reaches the specified path threshold.

To assign a storage group to a subscriber:

1. On the Center V2 window, click the **Accounts** button (No. 7, Figure 1-1). The Address Book window appears.
2. Select the subscriber and click the **Subscriber Settings** button . The Subscriber Settings dialog box appears.
3. Select a storage group from the drop-down list.

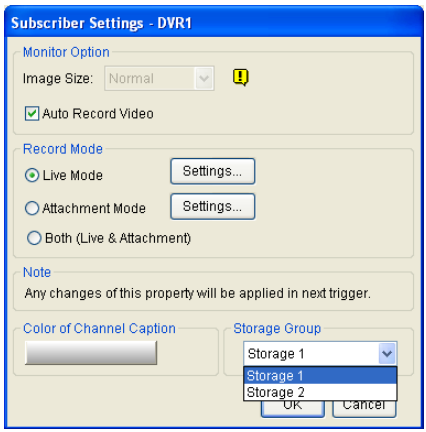


Figure 1-58

4. Repeat steps 1 to 3 to assign a storage group to another subscriber.

1.15.5 Dispatch Server Settings

See *2.6 Connecting Center V2 to Dispatch Server*.

1.16 Notification Settings

When alert conditions occur, Center V2 can automatically activate the assigned computer and output alarm to notify the operator while an SMS and an e-mail message are being sent out to subscribers. For this application, click the **Preference Settings** button (No. 8, Figure 1-1) on the Center V2 window and select **Notification** to display this window.

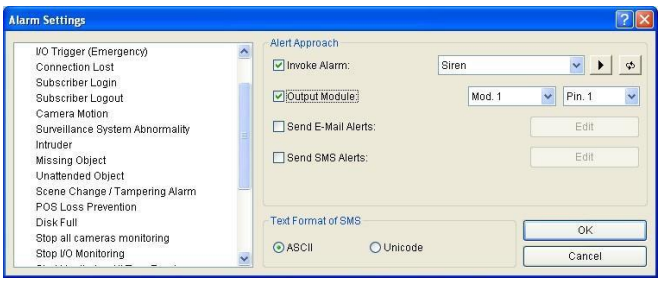


Figure 1-59

[List box] Select an alert condition in the left list box and configure its settings.

[Alert Approach]

- **Invoke Alarm:** Select a computer alarm from the drop-drown list. Or, select **User Define** from the list to import one desired .wav sound. Click the **Arrow** button beside to test the assigned alarm. Click the **Repeat Mode** button to keep the alarm on until the alarm is manually turned off.
- **Output Module:** Select an installed output model and pin number to alert the Center V2 operator. To set up an I/O module on the Center V2, see *1.17 Output Alerts*.
- **Send E-Mail Alerts:** Enables e-mail alerts to send e-mails to subscribers. Click the **Edit** button to edit a message. For Mailbox settings, see *1.19 E-Mail Alerts*.

- **Send SMS Alerts:** Enables SMS alerts to send SMS messages to subscribers. Click the **Edit** button to edit a message. For SMS Server settings, see *1.18 SMS Alerts*.
- **Minimum Duration:** This option is only available for **Camera Motion** and **Connection Lost** alerts. The minimum duration is the minimal time period that the event must persist for Center V2 to be notified by alarm, output, e-mail and/or SMS. Select this option and click the **Edit** button to type the minimum duration. The default is **3** seconds.
  - For **Camera Motion** alert: This is used to minimize false motion detection, especially for outdoor scenes that are prone to flying insects.
  - For **Connection Lost** alert: This is used to exclude connection lost alerts from cameras that resume to network instantly after they disconnect.

[Text Format of SMS] ASCII for English text, limited to 160 characters. Unicode for other languages, limited to 70 characters.

Note: To automatically send E-mail and SMS alerts when alert conditions occur, ensure to set up e-mail addresses and mobile numbers for each subscriber in the Subscriber Address Book (Figure 1-3).

1.17 Output Alerts

You can activate output devices locally (installed directly to the Center V2 server) and/or virtually (through the network) to warn the Center V2 operator when events occur. Up to nine (9) GV-I/O Boxes (including local and virtual) can be connected to one Center V2 Server.

Note:

1. Only 8-port and 16-port GV-I/O Boxes can be connected to Center V2 through Ethernet.
2. The GV-I/O Box must be installed in the same LAN with the Center V2 server.

1.17.1 Configuring a Local GV-I/O Box

1. On the Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-1) and select **Local I/O Device**. This dialog box appears.

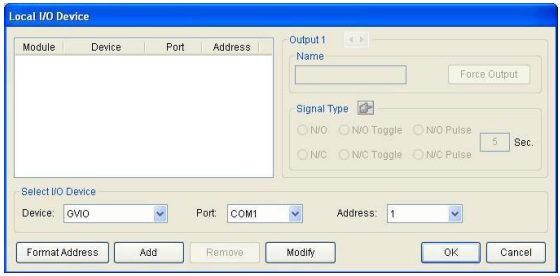


Figure 1-60

2. Select the **Device**, **Port** and **Address** using the drop-down lists and then click the **Add** button.
3. Click **OK** to finish adding the GV-I/O Box.
4. To trigger outputs automatically by event, see *Triggering Outputs by Event* later in this section.
5. To trigger outputs manually, see *Triggering Output Manually* later in this section.

1.17.2 Configuring a Virtual GV-I/O Box

1. On the Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-1) and select **Virtual I/O**. The Virtual I/O Device dialog box appears.
2. Click the **Add** button. This dialog box appears.

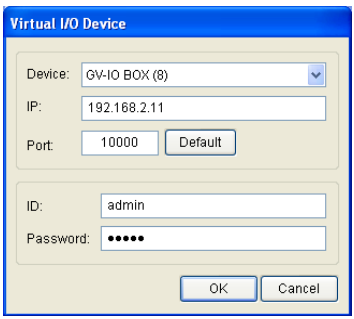


Figure 1-61

3. Select the device using the drop-down list, and type the **IP address**, **ID** and **Password** of the GV-I/O Box. You can look up the IP address of the GV-I/O Box using the **GV IP Device Utility**.
4. Click **OK** to finish adding the GV-I/O Box.
5. To trigger outputs automatically by event, see *Triggering Outputs by Events* later in this section.
6. To trigger outputs manually, see *Triggering Outputs Manually* later in this section.

1.17.3 Triggering Outputs by Event

1. On the Center V2 w indow, click the **Preference Setting** button (No. 8, Figure 1-1) and select **Notification**. The Alarm Settings dialog box appears.
2. Select an event type for alarm output to be triggered.

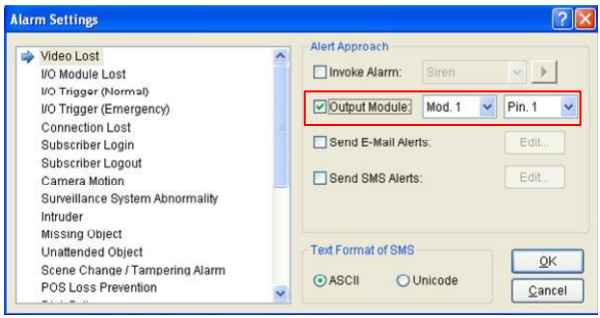


Figure 1-62

3. Select **Output Module** and define the module number and pin number using the drop-down lists.
4. To set up more event types for alarm output, repeat steps 2 and 3.

1.17.4 Triggering Outputs Manually

1. On the Center V2 window, click the **Tools** button (No. 5, Figure 1-1) and select **Force Output**. This dialog box appears.

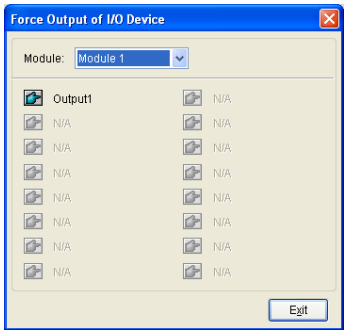


Figure 1-63

2. Select a desired module and then click the **Finger** button to trigger the output.

You can also trigger the outputs connected at the subscriber site through the I/O Status interface. For details, see *Showing I/O Status*, *1.10 Advanced Monitoring and Management*.

1.18 SMS Alerts

You can send SMS messages to subscribers when alert conditions occur.

1.18.1 Setting SMS Server

Before sending SMS messages to an individual subscriber, you need to define SMS Server correctly.

1. On the Center V2 window, click the **Tools** button (No. 5, Figure 1-1), and then select **Connect to SMS Server** to display this dialog box.

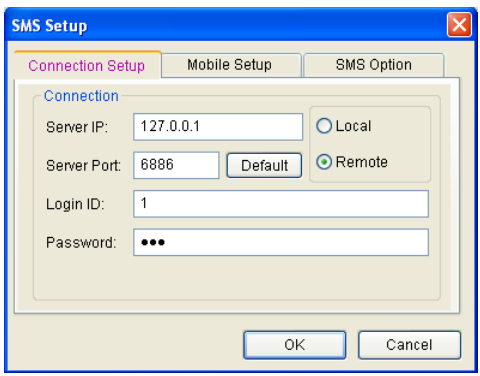


Figure 1-64

2. Type the IP address, communication port, Login ID and Password of the SMS Server.
3. If the SMS Server is installed at the same computer with the Center V2, select **Local.** If not, select **Remote**.

4. To set up three mobile numbers of Center V2 operators to get notified when Center V2 loses connection to SMS Server, click the **Mobile Setup** tab to display this window.

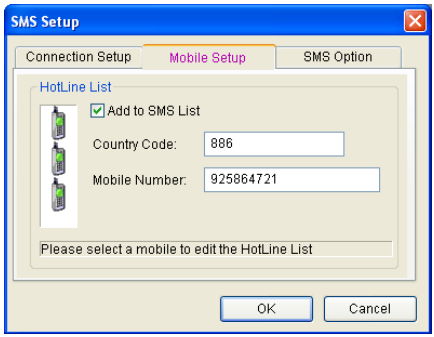


Figure 1-65

5. Select one mobile icon, check **Add to SMS List**, and type country code and mobile number.

6. To set time intervals between each SMS message when alert occurs, click the **SMS Option** tab to display this window.

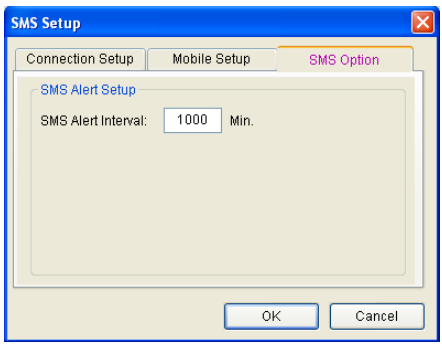


Figure 1-66

7. In the SMS Alert Setup field, set the interval between 0 and 1440 minutes.

For details on SMS Server, see Chapter 10, *GV-DVR User's Manual* on the Software DVD.

1.18.2 Connecting to SMS Server

In the Center V2 window, click the **Tools** button (No.5, Figure 1-1), and then select **Connect to SMS Server** for connection.

1.18.3 Sending SMS

Once the connection of SMS Server and Center V2 is established, there are several ways to send SMS messages to subscribers. See the Center V2 window for the following selections.

1. Click the **Tools** button (No.5, Figure 1-1) and select **Send Short Message**. This sends SMS to an individual subscriber manually.
2. On the Subscriber List (No. 4, Figure 1-1), right-click one subscriber and select **Send Short Message**. This sends SMS to an individual subscriber manually.
3. On the Event List, double-click one Event Type, except Attachment, to call up a message window. Click the **Send Short Message** icon on the window. This sends SMS to an individual subscriber manually.
4. Right-click one display channel and select **Send Short Message**. This sends SMS to an individual subscriber manually.
5. Click the **Preference Settings** button (No. 8, Figure 1-1), and select **Notification** to display the Alarm Settings window. Check the **Send SMS Alerts** item. This sends SMS to subscribers automatically when set alert conditions occur. For details, see *Notification Settings* earlier in this chapter.

1.18.4 Inserting Device Information

The subscriber name and ID can be inserted automatically into your SMS message when it is sent out.

1. On the Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-1) and select **Notification**. This dialog box appears.

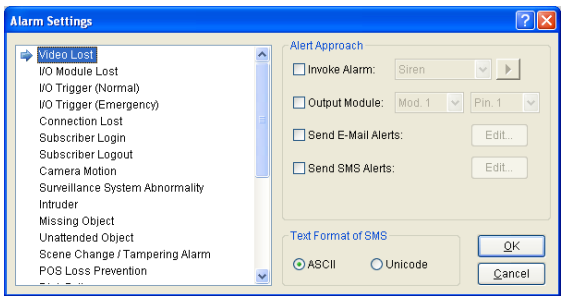


Figure 1-67

2. Select the event into which you wish to insert the subscriber name and ID, and select **Send SMS Alerts**. This dialog box appears.

Figure 1-68

3. Type the message text and click the **Macros** button. This dialog box appears.

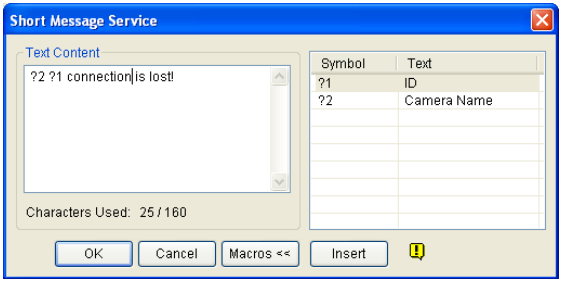


Figure 1-69

4. Place the pointer to where you wish to insert the subscriber name and ID in the text, select the corresponding symbol and click **Insert**. The symbols will be replaced with real information when the message is displayed to the user.

1.19 E-Mail Alerts

You can send e-mails to subscriberswhen alert conditions occur.

1.19.1 Setting Mailbox

Before you can send e-mails to a separate e-mail account, you need to define your mailbox correctly.

Setting up the mailbox

1. On the Center V2 w indow, click the **Preference Settings** button (No. 8, Figure 1-1), and then select **E-Mail Setup**. This dialog box appears.

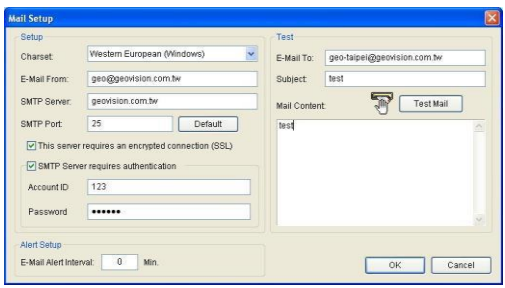


Figure 1-70

2. In the Charset field, select the set of characters and symbols that the e-mail uses.
3. In the E-Mail From field, enter your e-mail address.
4. In the SMTP Server field, type the outgoing server address.
5. If your e-mail server requires an SSL (Secure Sockets Layer) authentication for connection, select **This server requires an encrypted connection (SSL)**.

6. If your e-mail service provider requires authentication for sending e-mails, select **SMTP Server requires authentication**, and type the account ID and password of your SMTP.
7. If you want to set time intervals between each e-mail message when alert occurs, in the Alert Setup field, set the interval between 0 and 1440 minutes.
8. Click **OK**.

Sending a test e-mail

After setting up your mailbox, you can use the Test section and send a message to your own e-mail account for testing.

1. Enter your own e-mail address in the E-Mail To field.
2. Enter a subject for the e-mail.
3. Type the desired message in the Mail Content field.
4. Click the **Test Mail** button.

1.19.2 Sending E-Mail

There are several ways to send e-mail alerts. See the Center V2 window for the following selections.

1. On the Subscriber List (No. 4, Figure 1-1), right-click one subscriber, and then select **Send E-Mail**. This sends the e-mail to an individual subscriber manually.
2. Right-click one display channel, and then select **Send E-Mail**. This sends the e-mail to an individual subscriber manually.
3. On the Event List, double-click one Event Type, except Attachment, to call up a message window. Click the **Send E-Mail** icon on the window. This sends the e-mail to an individual subscriber manually.
4. Click the **Preference Settings** button (No. 8, Figure 1-1), and select **Notification** to display the Alarm Settings window. Check the **Send E-Mail** item. This sends e-mails to subscribers automatically when set alert conditions occur. See *1.13 Notification Settings* in this chapter.

1.19.3 Inserting Device Information

The subscriber name and ID can be inserted automatically into your email message when it is sent out. For setup details, see *Inserting Device Information* in *1.19 E-Mail Alerts*.

1.20 E-Map Alerts

You can configure an instant E-Map alert to lay out the locations of triggered cameras, sensors and alarms within a floor plan.

For this application, subscribers must already create their own E-Maps using the E-Map Editor and activate **WebCam Server**.

To access the E-Map at the Center V2, right-click one online subscriber on the Subscriber List (No. 4, Figure 1-1) and select **E-Map**. The Remote E-Map window will appear. When motion or input trigger is detected on the subscriber, the camera or input icon on the E-Map will blink for alert. You can also double-click the camera icon to see its live view.

1.20.1 The Remote E-Map Window

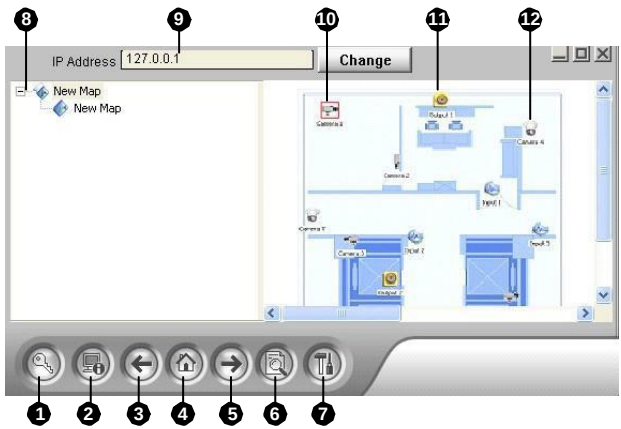


Figure 1-71

The controls on the Remote E-Map window:

No.	Name	Description
1	Login	Click to log in up to 500 hosts.
2	Host Information	Click to view the information of incoming events upon motion detected and I/O devices triggered.
3	Previous	Click to go to the previous E-Map file.
4	Home	Click to back to the top of the tree view.
5	Next	Click to go to the next E-Map file.
6	View Log	Click to access the Remote View Log function.
7	Configure	Click to configure the Remote E-Map.
8	Tree List	The list displays all created E-Map files and folders.
9	IP Address	Displays the IP Address of the connected host.
10	Blinking Icon	The blinking icon represents a triggered camera or I/O device.
11	Output Icon	Click to manually force the output device.
12	Camera/Dome Icon	Click to view the live video associated with that camera/dome. Up to 16 live videos can be accessed simultaneously.

1.20.2 Configuring the Remote E-Map

Click the **Configure** button (No. 7, Figure 1-74) to display the following dialog box:

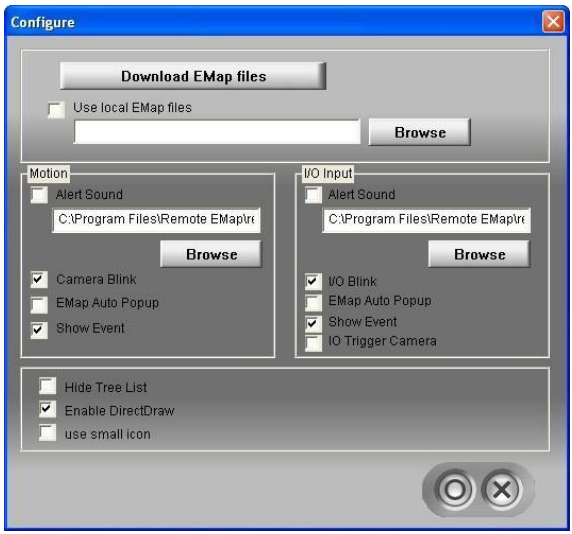


Figure 1-72

[Download EMap files] Click to download E-Map files from the subscriber server to the local computer. This option can reduce network load when you want to view E-Maps of multiple subscribers.

- **Use local EMap files:** Once downloading E-Map files to the local computer, you can use these E-Map files for connection.

[Motion] / [I/O Input]

- **Alert Sound:** Select this option and assign a .wav file to alert the operator when motion is detected or input devices are triggered.
- **Camera Blink, I/O Blink:** When cameras or input devices are triggered, their icons on the E-map flash.

- **EMap Auto Popup:** When cameras or input devices are triggered, the related map will be displayed on the Remote E-Map window instantly.
- **Show Event:** Select this option to display motion or input triggered events on the Host Information window.
- **I/O Trigger Camera:** When input devices are triggered, the related camera views will be displayed on the Remote E-Map window instantly. For this function to work, input devices must be mapped to cameras on the Main System.
- **Hide Tree List:** Select this option to hide the tree list.
- **Enable DirectDraw:** The DirectDraw is enabled by default. Some VGA cards might not support DirectDraw and can produce distorted frames. In this case, disable the feature.
- **Use small icon:** The Remote E-Map uses the large icons of cameras and I/O devices by default. Select this option if you want to use small icons.

1.21 Event Chart

The Event Chart can provide you the daily, weekly and monthly statistical chart based on different criteria. These statistical charts allow the administrator to analyze the occurrence of different event types and message types, and the events that occur on different subscribers.

To display the Event Chart, you need to install the following software on the computer. Use the links in the Software DVD or click **Here** below to download the software.

- Microsoft .NET Framework 3.5 SP1 or later versions (Click Here)
- Microsoft Chart Controls (Click Here)

1.21.1 Accessing the Event Chart

1. Click the **Tools** button (No. 5, Figure 1-1) and select **Event Chart**. This window appears.

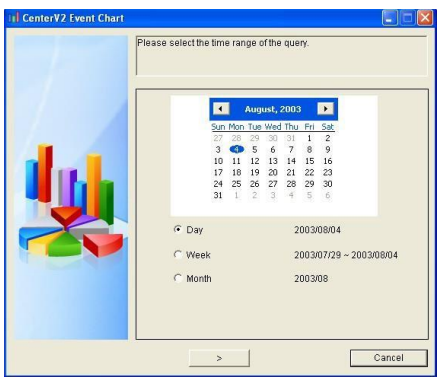


Figure 1-73

2. Specify a day or select a week or month to query the event data. Click the **Next** button. This dialog box appears.

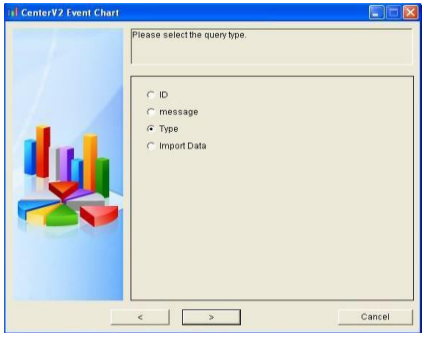


Figure 1-74

3. Select **ID** to query the events based on subscriber's ID and **message** or **Type** to query the events based on message types. **Import Data** allows you to query the events based on your previously-exported query settings (see Step 5).

   Here we select **Type** as an example. Click the **Next** button. This dialog box appears.

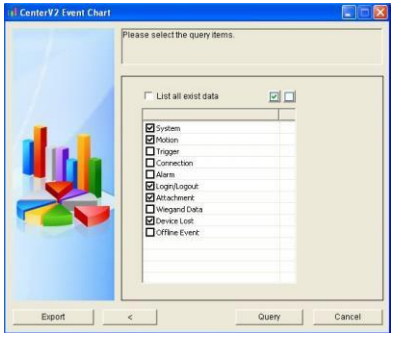


Figure 1-75

4. Select **List all exist data** to query all the event types, or disable it to select the desired event types.

5. You can optionally click **Export** at the left bottom of the window to export the settings for next-time use.

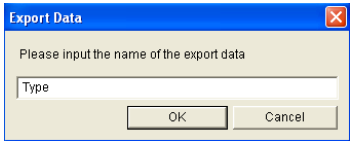


Figure 1-76

6. Click the **Query** button to display the statistical chart.

Note: If you select **ID** or **Message** to query the events, you need to type the subscriber ID or message type you want to query.

1.21.2 Event Chart

You can click each item on the chart to view more detailed information.

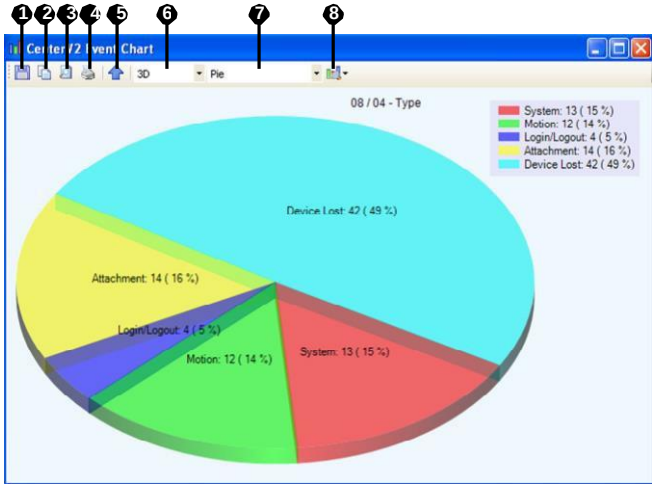


Figure 1-77

No.	Name	Description
1	Save Image	Saves the chart image.
2	Copy Image	Copies the chart image.
3	Preview	Previews the chart image for print.
4	Print	Prints the chart image.
5	Up one level	Goes to the previous chart image.
6	3D/2D	Presents the chart in 3D or 2D mode.
7	Pie/Line/Column	Presents the event data in pie, line or column chart.
8	View	Presents the title, label, legend, name, count or percentage in the chart.

1.22 Failover Server

You can configure up to two failover servers in case of the primary Center V2 server failure. Whenever the primary fails, the failover server takes over the connection from subscribers, providing uninterrupted monitoring services.

1. To import subscribers' accounts from the primary server to the failover server, click the **Import / Export Address Book** button (No. 6, Figure 1-2) on the Address Book toolbar, and select **Import** to transfer the address book data.
2. On the Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-1), and select **Automatic Failover Support**. This dialog box appears.

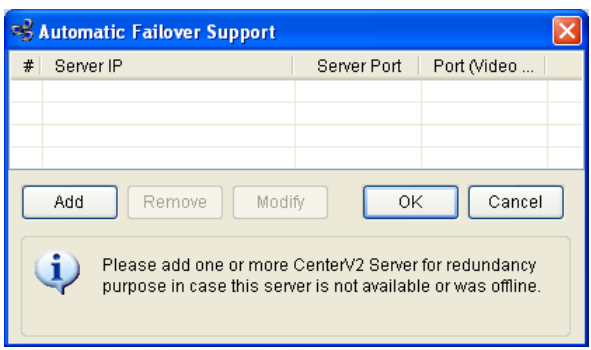


Figure 1-78

3. Click the **Add** button to add one server. This dialog box appears.

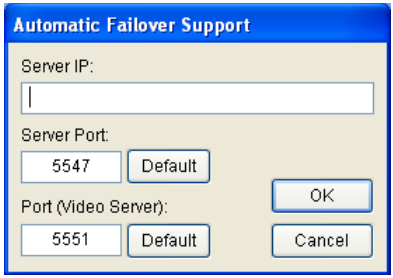


Figure 1-79

4. Type the IP Address of the failover server. Keep the default port settings or modify them if necessary.
5. Click **OK**. When the primary Center V2 server fails, all connections from subscribers will be diverted to the failover server automatically.

Note: Once the primary server is ready to resume the services, it is required to close the failover server so the connection from subscribers can move back to the primary.

1.23 Assigning a Subscriber to Another Center V2

You can assign one subscriber to another Center V2 without ending the current connection. For this function to work, subscribers must also use GV-System version 8.3 or later.

Note: The function is not available for the subscribers of GV-Video Server, GV-Compact DVR and GV-IP Camera.

---

1. In the Subscriber List, right-click the desired subscriber, and select **Dispatch to other Center V2**. This dialog box appears.

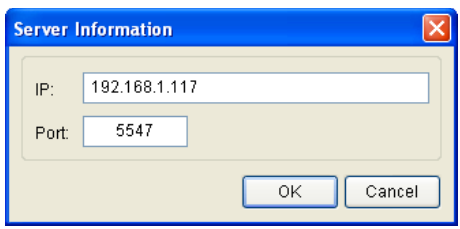


Figure 1-80

2. Type the IP address of another Center V2. The default port value is 5547. Modify it if necessary.
3. Click **OK**. The subscriber will be therefore assigned to the designated Center V2. In the Subscriber List of the local Center V2, that subscriber's icon shows offline.

1.24 Channel Display on Another Monitor

If the Center V2 is equipped with multiple monitors, you can use the QView feature to display a selected channel on another monitor screen.

1. On the Center V2 window, click the **Tools** button (No. 5, Figure 1-1) and select **QView**. This dialog box appears.

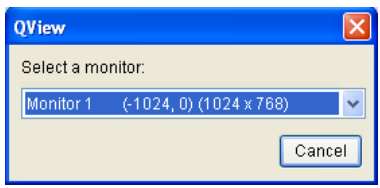
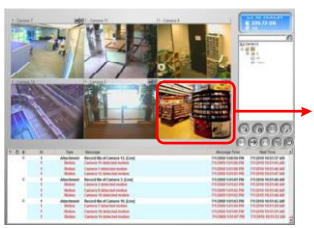


Figure 1-81

2. Use the drop-down list to select a desired monitor.
3. Click one channel to be displayed on that monitor.



Select a channel to be displayed on another monitor screen

The selected channel is displayed on another monitor screen

Figure 1-82

4. To switch to another channel, simply click another channel.

Chapter 2
Dispatch Server

The availability of Center V2 Servers may be threatened by network overload. Thru Dispatch Server, the concern can be settled by arranging and distributing subscribers' requests to the least busy Center V2 Servers. With Dispatch Server, a central monitor station can run several Center V2 Servers and serve a large number of subscribers with the fastest responding time. If any of Center V2 Servers needs maintenance, Dispatch Server can automatically redistribute subscribers' requests to other Center V2 within a server farm or to servers in another location.

2.1 Minimum System Requirements

Before installation, make sure that your computer meets the following minimum requirements:

Standard Version

OS	**32-bit**	Windows XP / Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU		Pentium 4, 3.0 GHz with Hyper-Threading
Memory		2 x 512 MB Dual Channels
Hard Disk		The hard disk space required to install Dispatch Server (Standard Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle

Advanced Version (Connections to more than 100 DVR subscribers)

OS	**32-bit**	Windows XP / Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU		Core 2 Duo, 2.4 GHz
Memory		2 x 1 GB Dual Channels
Hard Disk		The hard disk space required to install Dispatch Server (Advanced Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle

Dongle Options

Combination	Dispatch Server
	Dispatch Server + VSM

2.2 Installation

1. Connect the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It will run automatically and a window appears.
3. To install the USB device driver, select **Install or Remove Guardian Security Solutions**

   GV-Series Driver and select **Install Guardian Security Solutions USB Device Drivers**.
4. To install GV-Dispatch Server, select **Install Guardian Security Solutions Paid**

   Software.
5. Click **GV-Dispatch Server** and follow the on-screen instructions.

2.3 The Dispatch Sever Window

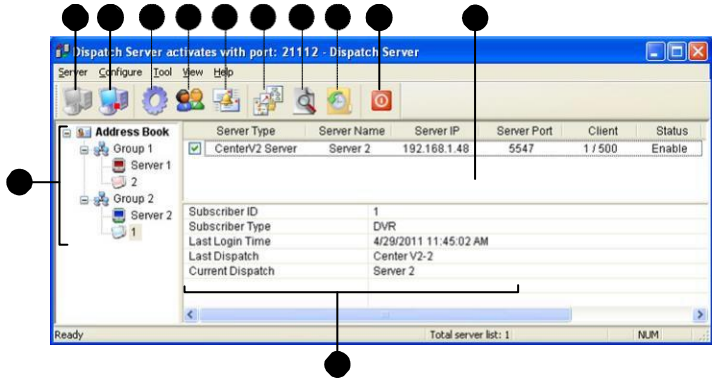


Figure 2-1

The controls on the Dispatch Server window:

No.	Name	Description
1	Start Server	Starts Dispatch Sever.
2	Stop Server	Stops Dispatch Sever.
3	Server Setting	Configures Dispatch Sever.
4	Account	Adds, edits and deletes the accounts of Center V2 Servers and subscribers.
5	Subscriber Notification Setting	Sets the alert conditions and methods
6	Manual Dispatch	Enables manual distribution of subscribers. Click this button and drag a subscriber to the desired Center V2 Server.

No.	Name	Description
7	Stop/Start Query Center V2 Event	Specifies an event query.
8	Real-time CenterV2 Event	Views real-time events occurring on Center V2 Servers.
9	Exit	Closes the Dispatch Server window.
10	Center V2 Status	This part lists the connected Center V2 Servers and their status. Subscribers can be distributed to the ticked Center V2 Servers. Unchecking will disable the distribution service.
11	Tree View	The list displays all created group folders, servers and subscribers. You can right-click any online subscriber to call up **Subscriber Address Book** and **Camera/Audio Control** Panel. For details, see *2.11 Live View*. **Blue Icon:** The server / subscriber is online. **Red Icon:** The server / subscriber is offline.
12	Subscriber Status	Displays subscriber information such as subscriber ID, type, last login time, last dispatch and current dispatch. Click the desired subscriber form the tree view to display this information.

2.4 Subscriber Account

Dispatch Server can serve up to **50** Center V2 Servers and **25,000** Center V2's subscribers simultaneously. Before starting the services, create at least one server and one subscriber account on the Dispatch Server. To create an account, click the **Account** button (No. 4, Figure 2-1) to display this Address Book window.

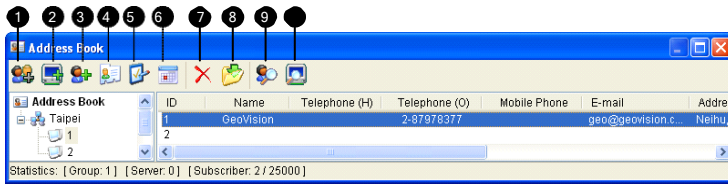


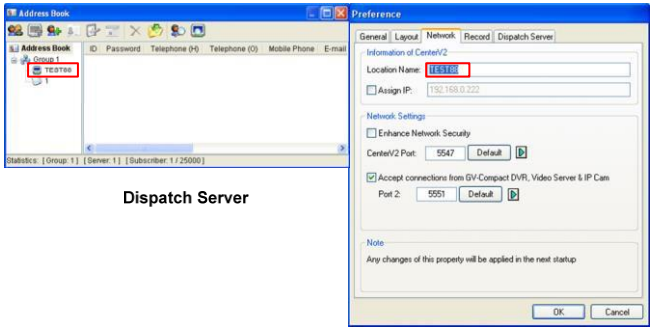
Figure 2-2

The toolbar on the Address Book window:

No.	Name	Description
1	Add A Group	Adds a group folder.
2	Add A Server	Adds a Center V2 Server.
3	Add A Subscriber	Adds a subscriber.
4	View /Edit Subscriber Address Book	Opens Subscriber Address Book for viewing and editing.
5	Subscriber Setting	Highlight one subscriber and click this button to configure the settings of video and alert formats. For details, refer to *1.4.2 Subscriber Settings* and *1.4.3 Attachment Mode Settings*.
6	Subscriber Schedule Setting	Sets up subscription schedules
7	Delete A Group/Server/Subscriber	Highlight a group, a server or a subscriber and click this button to delete it.
8	Import / Export Address Book	Imports or exports the address book data.
9	Find A Subscriber	Searches a subscriber account.
10	Find A Server	Searches a server account.

Creating a Subscriber Account

1. On the Dispatch Server Window, click the **Account** button . The Address Book window appears.
2. Click the **Add a Group** button to create a group.
3. Click the **Add a Server** button to to create a Center V2 server account. A server icon pops out. Rename the server to match the location name created for the Center V2 server.



Dispatch Server

Center V2 Server

Figure 2-3

4. Click the **Add a Subscriber** button to create a subscriber account. The Subscriber Address Book dialog box appears.

5. Create an ID and password for the subscriber. The ID and password will be used when the Center V2's subscriber wants to log into the Dispatch Server.

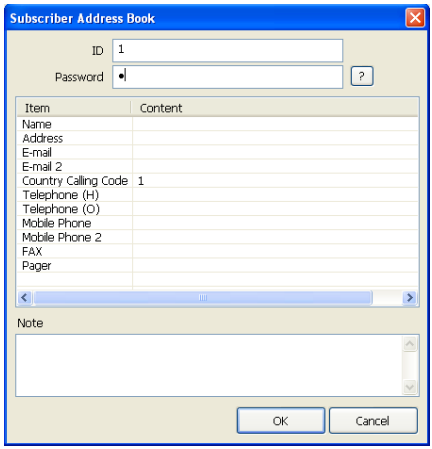


Figure 2-4

6. Click **OK** to finish.

Note:

1. You can create sub-groups beneath a group; every sub-group can only include one Center V2 server; every Center V2 server can include up to **500** subscribers.
2. When one Center V2 server stops running, its own subscribers will be distributed to available Center V2 servers at the same or higher level of the hierarchical file system.
3. If you do not arrange Center V2 servers and subscribers into groups, they will be distributed to the Center V2 server with fewer subscribers.

2.5 Service Startup

After subscriber accounts are created, you are ready to establish connections to the Dispatch Server. Follow the steps below.

1. On the main screen, click **Configure** and select **Setting**. The Dispatch Server Setting dialog box appears.
2. Type an **Identification Code**. This code will be used for connecting Center V2 Server to Dispatch Server.

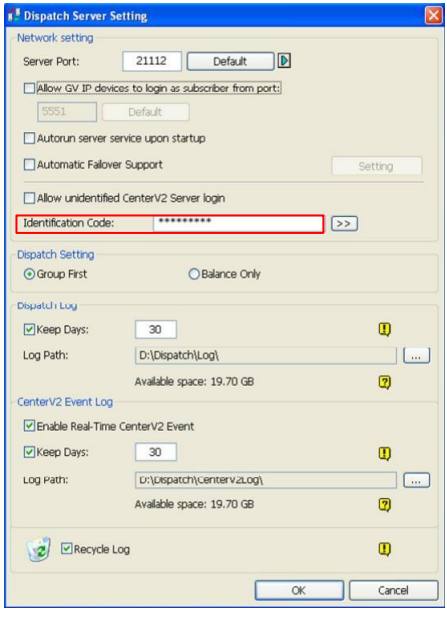


Figure 2-5

3. Connect Center V2 Server to Dispatch Server. See *2.6 Connecting Center V2 to Dispatch Server*.
4. To add a GV-System as a subscriber, connect GV-System to Dispatch Server. See *2.7 Connecting GV-System to Dispatch Server*.
5. To add a GV-IP Device as a subscriber, connect GV-IP Devices to Dispatch Server. See *2.8 Connecting GV-IP Device to Dispatch Server*.
6. Click the **Start Server** button (No. 1, Figure 2-1) on the main screen to start the service.

2.6 Connecting Center V2 to Dispatch Server

Follow these steps to connect Center V2 to Dispatch Server:

1. Start the Dispatch Server service.
2. At Center V2, click the **Preference Settings** button (No. 8, Figure 1-1), select **System Configure** to display the Preference window, and then click the **Dispatch Server** tab. The Preference dialog box appears.
3. Click the **Dispatch Server** tab. Type the identification code, IP address, and the port of the Dispatch Server.

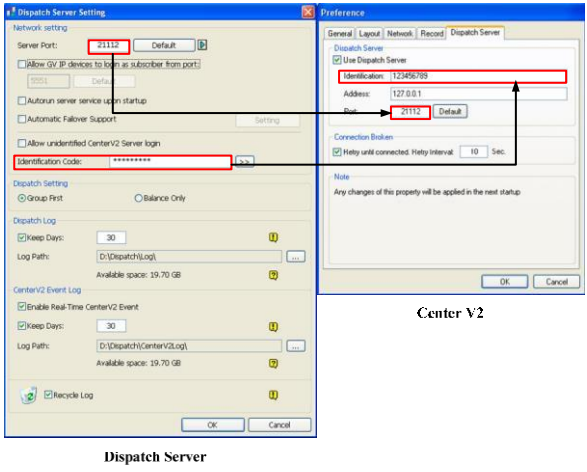


Figure 2-6

4. Click **OK**.
5. Restart the Center V2. Without this step, the Center V2 will not connect to the Dispatch Server.

2.7 Connecting GV-System to Dispatch Server

Configure the GV-System so that it can connect to Dispatch Server. Follow these steps to connect GV-System to Dispatch server:

1. On the main screen of GV-System, click the **Network** button , and then select **Connect to Center V2**. The Login Information dialog box appears. See Figure 1-7.
2. In the Center IP field, type the IP address of the Dispatch Server.
3. Type a user ID and password created in the Dispatch Server.
4. Change the port number from 5547 (Center V2 port) to **21112** (Dispatch Server port).
5. Click the **OK** button. The Connect to Center V2 dialog box appears.
6. Click the **Connect** button to enable connecting to the Dispatch Server.

Note: If you want to modify the login information of the Center V2, on the Connect to Center V2 dialog box, click the listed Center V2 IP and then select **Modify**.

2.8 Connecting GV-IP Device to Dispatch Server

The Dispatch Server can distribute GV-IP Devices to Center V2 Servers based on predefined groups or balance loading of Center V2 Servers. Follow these steps to connect a GV-IP Device to the Dispatch Server:

1. On the main screen, click **Configure** and select **Setting**. The Dispatch Server Setting dialog box appears.
2. Select **Allow GV IP devices to login as subscriber from port** to allow GV-IP Devices to log in as subscribers. Change the port when necessary.

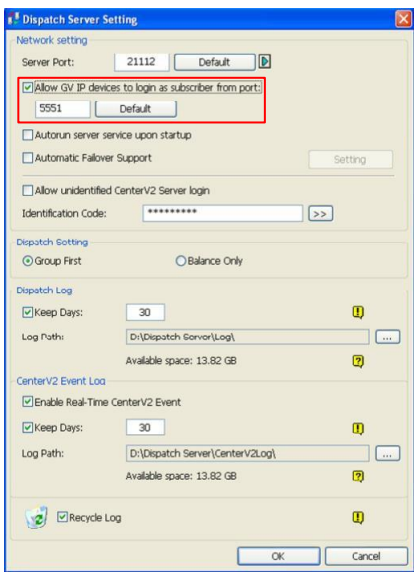


Figure 2-7

3. On the Web interface of the GV-IP Device, click **Events and Alerts** and select **Center V2**.

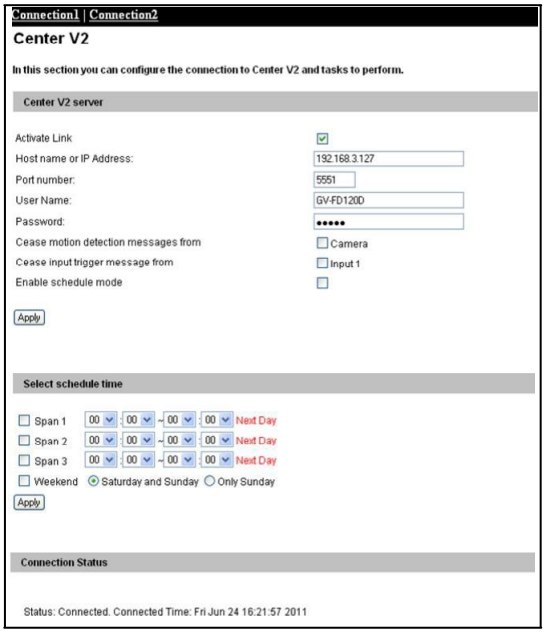


Figure 2-8

4. Enable connection to Dispatch Server.
   A. **Active Link:** Click to configure and enable the connection.
   B. **Host Name or IP Address:** Type the host name or IP address of the Dispatch Server.
   C. **Port Number:** Match this port to the port value in step 2 (Figure 2-7) to connect to the Dispatch Server.
   D. **User Name:** Type a user name already established in the Dispatch Server to log in.

E. **Password:** Type a valid password to log into the Dispatch Server.

F. Click **Apply**. The Connection Status should display "Connected" and the connection time.

5. This subscriber will be automatically distributed to an online Center V2 Server that has the least number of subscribers.

2.9 Setting a Primary Center V2 Server

You can set up a primary Center V2 Server to which the subscriber is distributed whenever this Center V2 Server is connected. This function is especially useful when you wish to ensure that a certain Center V2 Server gets the priority of monitoring a particular subscriber.

1. Click **Configure** on the main screen and select **Customize Dispatch Setting**. The Customize Dispatch Setting dialog box appears.
2. Select a primary Center V2 Server using the drop-down list.

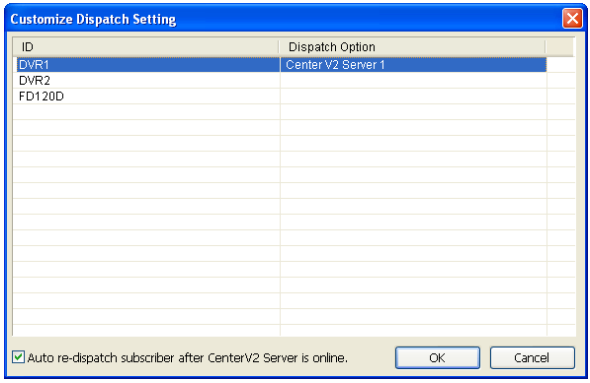


Figure 2-9

3. Select **Auto re-dispatch subscriber after Center V2 Server is online**.
4. Click **OK**. This subscriber will be distributed to the selected Center V2 Server whenever it is connected to the Dispatch Server.

2.10 Event Query

This feature lets you locate a desired event by posing a query on Center V2 Servers. Click the **Stop/Start Query Center V2 Event** button (No. 7, Figure 2-1) on the toolbar to display the following dialog box. Check the desired query items (Type, ID, Date and/or Time), define your query condition under each item, and then click **OK** to display the query results.

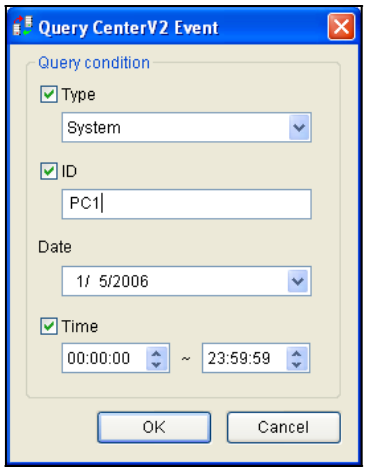


Figure 2-10

The Query feature supports the remote playback when folder sharing on the recording folder of Center V2 is enabled. Double-clicking any found event with video attachment can play it back on Dispatch Server.

Note: To enable folder sharing on the recording folder of Center V2, right-click the folder and select **Sharing and Security**. Click the **Sharing** tab, in the **Network sharing and security** section, select **Share this folder on the network**. Click **OK**. The default path for recordings is :\\Center V2\ Data.

2.11 Event List

The feature lets you view the real-time events occurred on Center V2 Servers. For the application, make sure the **Enable Real-Time CenterV2 Event** option is enabled; see Figure 2-13. Then click the **Real-Time Event** button (No. 8, Figure 2-1) on the toolbar to display the following window.

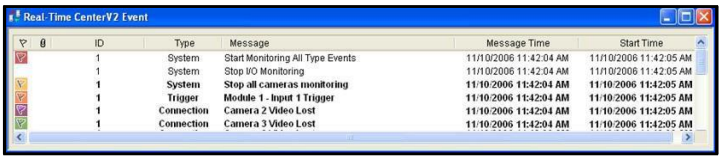

Real-Time CenterV2 Event
ID
Type
Message
Message Time
Start Time
1 System Start Monitoring All Type Events 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM
1 System Stop I/O Monitoring 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM
1 System Stop all cameras monitoring 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM
1 Trigger Module 1 - Input 1 Trigger 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM
1 Connection Camera 2 Video Lost 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM
1 Connection Camera 3 Video Lost 11/10/2006 11:42:04 AM 11/10/2006 11:42:05 AM

Figure 2-11

The controls on the Real-Time Center V2 Event window:

1. The window supports the remote playback when folder sharing on the recording folder of Center V2 is enabled. Double-clicking any event with video attachment can play it back on Dispatch Server.
2. You can flag an incoming event for later reference. Click in the flag column to flag an event. Click the flag icon to remove it.

Note: The flags of various colors are provided to distinguish different events. You will find them useful not only when browsing in the Real-Time CenterV2 Event List window but also when using the Filter function in the Log Browser to sort out the desired events.

A list of Types and Messages from Center V2 will be displayed:

Type	Message
Motion	Camera detected motion
Trigger	I/O Trigger; Module xx Trigger Resume; Video of Camera xx (By: Module xx)
Connection	Video Lost; Module Lost; The network connection is lost; The connection of (client xx) is abnormal; Camera cannot be controlled; Ping Timeout; Failed to establish the connection; Video signal of Camera xx has resume; Module xx has returned to normal; Failed to Login SMS Server; Failed to send short message; SMS Server is shutdown.
Alarm	There isn't enough space for recording; There isn't enough space for recording; The storage for Event Log is low , Event Log will not take any new entries; An unexpected error occurred in Multicam Surveillance System (Error Code: 1 or 2); There is an intruder; Object Missing; Unattended Object; Alert Message of POS.
Attachment	Record file of Camera xx [Live, Attachment or offline].
System	Start Recycle; Recycle Event Log; Status change of monitoring cameras. On: (camera no.) Off: (camera no.) / (By Schedule); Stop all cameras monitoring; Start all cameras monitoring; Start I/O Monitoring. / (By Schedule); Stop I/O Monitoring. / (By Schedule); Schedule Start; Schedule Stop. All monitoring devices are stop too; Start monitoring all type events; Stop monitoring all type events; Subscriber session is not established. Wait-time expired; Unexpected logout before subscriber session is completed.

Note: Error Code 1 indicates a codec error; Error Code 2 indicates that users can't write or record any data due to HD failure or user privilege.

2.12 Subscription Schedule

The Dispatch Server operator can create schedules to monitor subscription status. When subscribers don't log in Dispatch Server on the programmed time, the operator and subscribers will get notified.

- To set up a schedule, see *1.11 Subscriber Schedule*.

- When a subscriber doesn't log in Dispatch Server on time, this message will appear on the Event List: Service hour engaged; still waiting for subscriber to log in.
  When a subscriber logs out suddenly during a service time, this message will appear: Unexpected subscriber logout during service times.

- To notify subscribers by SMS and E-Mail, see *2.14 SMS Alerts* and *2.15 E-Mail Alerts*.

2.13 Live View

You can view live videos from subscribers. To access a live view, right-click any online subscriber on the tree view of the Dispatch Server window (No. 11, Figure 2-1) and select **Camera/Audio Control**. For details on the controls of the Live View window, see *4.6 Live View*.

You can enhance the coloring to have more vivid and saturated images. Click **Configure** on the menu bar, select **DirectDraw Configuration**, select **Use Colorful Model**, click **OK** and restart the Dispatch Server program for the mode to take effect. Right-click any online subscriber and select **Camera/Audio Control** to see the enhaced live video.

2.14 Log Browser

The following two log browsers let you locate the events of Dispatch Server and Center V2 Servers easily.

2.14.1 Dispatch Log Browser

The browser lets you view and locate the system status of Dispatch Server, the login/out status of Center V2 Servers. Click **View** on the window menu and then select **Dispatch Log** to display the following log browser. For details on Log Browser, see *1.14 Event Log Browser*.

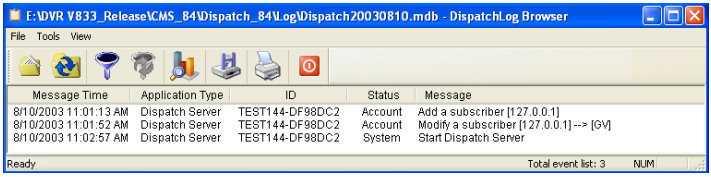

E:\DVR V833_Release\CMS_84\Dispatch_84\Log\Dispatch20030810.mdb - DispatchLog Browser
File Tools View
Message Time Application Type ID Status Message
8/10/2003 11:01:13 AM Dispatch Server TEST144-DF98DC2 Account Add a subscriber [127.0.0.1]
8/10/2003 11:01:52 AM Dispatch Server TEST144-DF98DC2 Account Modify a subscriber [127.0.0.1] --> [GV]
8/10/2003 11:02:57 AM Dispatch Server TEST144-DF98DC2 System Start Dispatch Server
Ready
Total event list: 3
NUM

Figure 2-12

A list of Status and Messages will be displayed:

Status	Message
System	Start Dispatch Server; Failed to start Dispatch Server; Stop Dispatch Server; Can't find KeyPro; Start to recycle the Dispatch Server; Start to recycle the CenterV2 Event Log.
Login/logout	CenterV2 Server (IP: CS_IP) connects to Dispatch Server; CenterV2 Server (IP: CS_IP) disconnects from Dispatch Server; CenterV2 Server (IP: CS_IP) disconnects from Dispatch Server abnormally; CenterV2 Client login; CenterV2 Client logout
Connection	CenterV2 Server (IP: CS_IP) is disconnected by Dispatch Server; CenterV2 Server changes IP from (CS_old_IP) to (CS_new _IP); CenterV2 Server (IP: CS_IP) is transferred to another Dispatch Server (DS_IP:DS_Port).

Status	Message
Control	CenterV2 Server [CS_Name] is enabled; CenterV2 Server [CS_Name] is disabled.
Dispatch	ID: login_ID is dispatched to [CS_Name] (IP: CS_IP); Invaild login ID; Invaild login Passw ord; This account has already logged in; There is no server online for CenterV2 Client; All online CenterV2 Servers have utmost service.

2.14.2 Event Log Browser

The brow ser lets you view and locate the real-time events from Center V2 Servers. Click **View** on the w indow menu, and then select **Event log** to display Event Log Brow ser. For details on Log Brow ser, see *1.14 Event Log Browser.*

2.15 System Configuration

To configure Dispatch Server, click the **Server Setting** button (No. 3, Figure 2-1) on the toolbar to display the following dialog box.

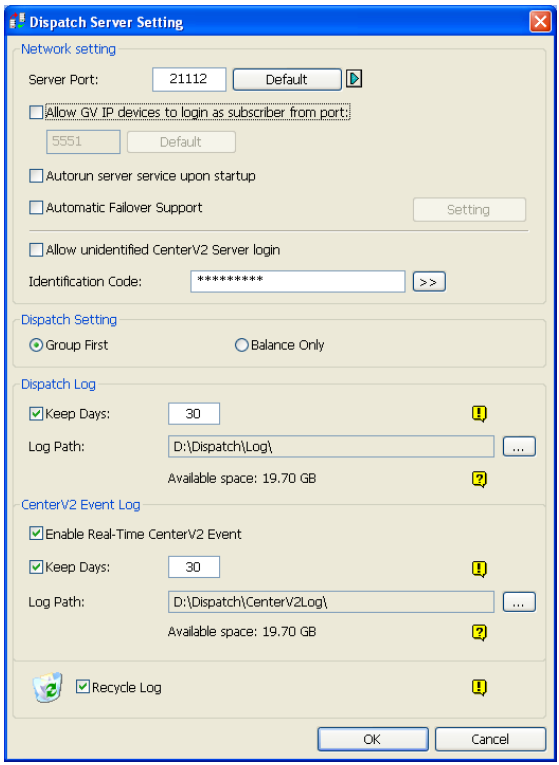


Figure 2-13

[Network Setting]

- **Server Port:** The port should match with the Dispatch Server Port of Center V2 (Figure 2-7). Or, keep the port setting as default.
  To automatically configure these ports on your router by UPnP technology, click the Arrow button. For details on UPnP settings, see *UPnP Settings*, *Appendix*.
- **Allow GV IP devices to login as subscriber from port:** Enables the connection to the GV-Video Server, GV-IP Camera, and GV-Compact DVR. The default port is 5551, or modify it to match the Center V2 port on the GV IP devices. For details, see *GV-Video Server User's Manual*, *GV-IP Camera User's Manual* or *GV-Compact DVR User's Manual*.
- **Auto run server service upon startup:** Automatically starts the Dispatch service when its program starts.
- **Automatic Failover Support:** Distributes Center V2 Servers to another Dispatch Server when the serving Dispatch Server breaks down. Enabling this item, you will be prompted to enter the IP address and port of another Dispatch Server. For details, see *2.17 Failover Server*.
- **Allow unidentified CenterV2 Server login:** Allows Center V2 to access Dispatch Server without entering the Identification Code.
- **Identification Code:** The code protects Dispatch Server against unauthorized Internet access. Center V2 will need the code to log in Dispatch Server.

[Dispatch Setting]

- **Group First:** Keeps subscribers in the assigned groups and Center V2 Servers.
- **Balance Only:** Distributes subscribers to Center V2 Servers with fewer subscribers.

Note: An unassigned subscriber will be automatically dispatched to a Center V2 Server by balance loading.

[Dispatch Log]

- **Keep Days:** Select the option and specify the number of days to keep Dispatch Logs. Otherwise clear the option to keep log until the Recycle starts or storage space is full.
- **Log Path:** Click the button next to the item to assign a storage path.

[CenterV2 Event Log]

- **Enable Real-Time CenterV2 Event:** Allows real-time event messages coming from Center V2 Servers.
- **Keep Days:** Select the option and specify the number of days to keep Center V2 event logs. Otherwise clear the option to keep log until the Recycle starts or storage space is full.
- **Log Path:** Click the button next to the item to assign a storage path.

[Recycle Log] Deletes the files of the oldest days when storage space is lower than 500 MB.

2.16 SMS Alerts

This feature automatically sends SMS messages to subscribers when they don't log in on the programmed time. For this, ensure to type a mobile number for each subscriber in the Subscriber Address Book (Figure 2-2).

To set up SMS Server, click **Configure** on the window menu and select **SMS Setup**. For details, see *1.18 SMS Alerts*.

To define alert conditions to send SMS messages, click the **Subscriber Notification Setting** button (No. 5, Figure 2-1) on the toolbar to display the Notification Setting dialog box. For setup details, see *1.16 Notification Settings*.

2.17 E-Mail Alerts

This feature automatically sends e-mails to subscribers when they don't log in on the programmed time. For this, ensure to type an e-mail address for each subscriber in the Subscriber Address Book (Figure 2-2).

To set up mailbox, click **Configure** on the window menu and select **E-Mail Setup**. For details, see *1.19 E-Mail Alerts*.

To define alert conditions to send e-mails, click the **Subscriber Notification Setting** button (No. 5, Figure 2-1) on the toolbar to display the Notification Setting dialog box. For setup details, see *1.16 Notification Settings*.

2.18 Event Chart

Dispatch Server can display log data in line chart, bar chart or pie chart.

To display the Event Chart, you need to install the following software on the computer. Use the links in the Software DVD or click **Here** below to download the software.

- Microsoft .NET Framework 3.5 SP1 or later versions (Click Here)
- Microsoft Chart Controls (Click Here)

To access the Event Chart:

1. Click **View** from the menu bar and select **Dispatchlog**.
2. Click the **Event Chart** button on the Dispatch Log Browser. This dialog box appears.

Figure 2-14

3. From the drop-down list, select **Application Type** to display events by the type of server, **ID** to display events by ID or **Status** to display events by the type of status. Application Type includes Dispatch Server, Center V2 Server, and Center V2 Subscribers. When Status is selected, events are categorized into Account, System, Login/logout, Connection, Control and Dispatch.

4. Click **OK** to see the data displayed in a chart.

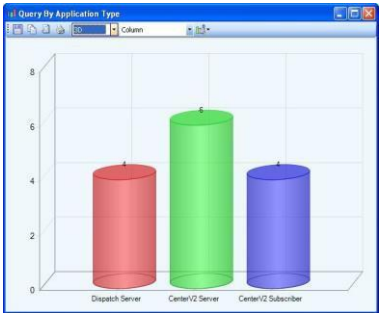


Figure 2-15

This feature is similar as that in Center V2. See *1.21 Event Chart* for more information on the controls of the chart window.

2.19 Failover Server

You can configure up to two failover servers in case of the primary server failure. Whenever the primary server fails, the failover server takes over the connection from subscribers, providing uninterrupted services.

1. To import subscribers' accounts from the primary server to the failover server, click the **Import / Export Address Book** button (No. 8, Figure 2-2) on the Address Book toolbar, and select **Import Address Book** to transfer the address book data.
2. On the Dispatch Server window, click the **Server Setting** button (No. 3, Figure 2-1). The Dispatch Server Setting dialog box (Figure 2-9) appears.
3. Select the **Automatic Failover Support** option. This dialog box appears.

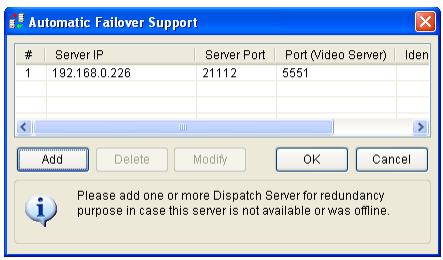

Automatic Failover Support
Server IP Server Port Port (Video Server) Iden
1 192.168.0.226 21112 5551
Add
Delete
Modify
OK
Cancel
Please add one or more Dispatch Server for redundancy purpose in case this server is not available or was offline.

Figure 2-16

4. Click the **Add** button. The Setting dialog box (Figure 2-13) appears.
5. Type the IP address of the failover server, and change the default port settings if necessary.

6. Type **Identification Code** matching to that in CenterV2 Identification Setting. If the information is inconsistent, the connection to the failover server cannot be established.

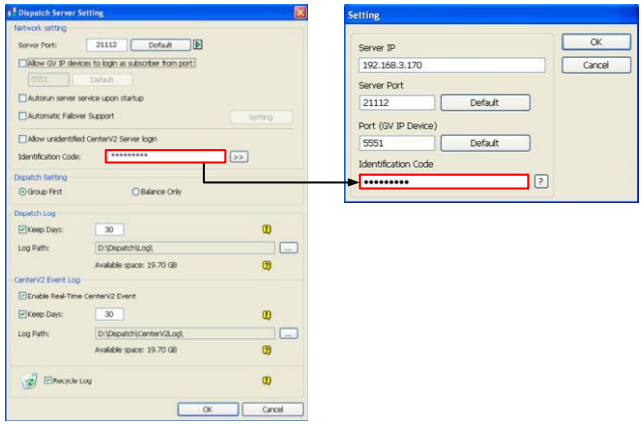


Figure 2-17

Note: Once the primary server is ready to resume the services, it is required to close the failover server so the connection from subscribers can move back to the primary.

Chapter 3
Vital Sign Monitor

Vital Sign Monitor (VSM) applies to the center monitoring station where multiple GV-Systems are being monitored. When alert events occur in a GV-System, VSM will receive alert text messages, computer alarms and/or output alarms, while an SMS message and an E-Mail are sent out to subscribers.

VSM also supports GV IP devices (GV–Video Server, GV-Compact DVR, GV-IPCam) for central monitoring.

3.1 Minimum System Requirements

Before installation, make sure your PC meets the following minimum requirements:

Standard Version

OS	**32-bit**	Windows XP/ Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU		Pentium 4, 3.0 GHz with Hyper-Threading
Memory		2 x 512 MB Dual Channels
Hard Disk		The hard disk space required to install Center V2 (Standard Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle

Advanced Version (Connections to more than 100 DVR subscribers)

OS	**32-bit**	Windows XP/ Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU		Core 2 Duo, 2.4 GHz
Memory		2 x 1 GB Dual Channels
Hard Disk		The hard disk space required to install Center V2 (Professional Version) must be at least 1 GB.
Graphic Card		AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle

Dongle Options

Combination	VSM
	VSM + Control Center
	VSM + Center V2
	VSM + Dispatch Server

To ensure the quality of downloading when multiple GV-Systems connect to the VSM, see the list below for the recommended bandwidth:

Number of Subscribers	Recommended Bandwidth
100	512 Kbps
500	2 Mbps
1000	4 Mbps

3.2 Installation

1. Connect the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It runs automatically and a window appears.
3. To install the USB device driver, select **Install or Remove Guardian Security Solutions GV-Series Driver** and select **Install Guardian Security Solutions USB Device Drivers**.
4. To install the Vital Sign Monitor, select **Install Guardian Security Solutions Paid Software**.
5. Click **GV-Vital Sign Monitor** and follow the on-screen instructions.

3.3 The VSM Window

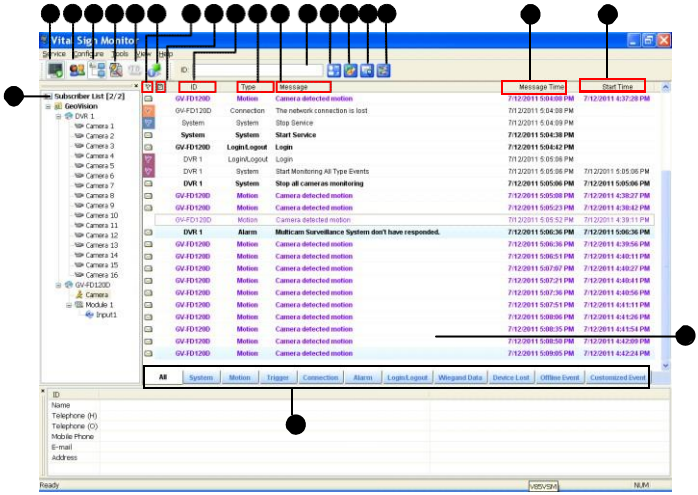


Figure 3-1

The controls on the VSM window:

No.	Name	Description
1	Start / Stop Service	Starts or stops the VSM service.
2	Account	Adds, deletes or modifies subscribers.
3	Show / Hide Subscriber List	Shows and hides the Subscriber List.
4	View Event Log	Launches Event Log Browser.
5	Force Output	Activates output devices manually to alert the VSM operator.
6	View Subscriber Information	Accesses the subscriber's storage and monitoring information.
7	ID	Enter an ID for further search.

No.	Name	Description
8	View Subscriber Address Book	Enter an ID, and then click this button to view the subscriber's address book.
9	View Subscriber Status	Enter an ID, and then click this button to see the subscriber's status.
10	Send E-Mail	Sends e-mails to subscribers.
11	Send Short Message	Sends SMS to subscribers.
12	Flag	Flags an event for later reference.
13	Clipboard	Displays the Alarm Report dialog box.
14	ID	Indicates the subscriber's ID.
15	Type	Indicates the event types, including System, Connection, Login/Logout, Motion, Trigger, and Alarm.
16	Message	Indicates associated information for each event type.
17	Message Time	Indicates the VSM's time when receiving the event message.
18	Start Time	Indicates the subscriber's time when sending out the event message.
19	Subscriber List	Indicates the number of online subscribers and displays the ID and status. Right-click any subscriber to call up a menu containing buttons No. 4, 8, 9, 10 and 11. The numbers of online subscribers and total subscribers are shown in brackets next to the Subscriber List. **Blue Icon:** Indicates the subscriber is online. **Gray Icon:** Indicates the subscriber is offline. **Alarm Icon:** Indicates either motion has been detected or the I/O has been triggered at the subscriber's site.
20	Event Categories	Events can be sorted in these categories: System, Motion, Trigger, Connection, Alarm, Login/Logout, Wiegand Data, Device Lost and Offline Event. To sort the events, click **View** from the menu bar and select **My Favorite Events.**
21	Event List	Displays a list of events occurred.

A list of Types and Messages will be displayed on VSM:

Type	Message
Motion	Camera xx detected Motion.
Trigger	Module xx-Input xx Triggered
	Module xx-Input xx Trigger Resume
Connection	Camera xx Video Lost
	Video Signal of Camera xx has resumed
	Module xx Lost
	Module xx has resumed to normal
Alarm	There isn't enough space for recording
	Connection Lost
	Multicam Surveillance System has been closed
	Status change of monitoring cameras: on: camera xx, off: camera xx
	Keep Days (xx) Alarm of Video Log is lower than xx days; Schedule Start/Stop
	An unexpected error occurred in Mulicam Surveillance System (Error Code: 1 or 2)
	There is an intruder
	Missing Object; Unattended Object
	Alert Message of POS; Scene Change
	Crowd Detection
	Advanced Missing Object
	Advanced Unattended Object
	Advanced Scene Change
	Critical Temperature Alarm [xx°C] or Critical Temperature Alarm [xx°F]
Login/Logout	Login
	X succeeded to log in Surveillance System
	Logout

Type	Message Start/End
System	Service Fail to Start
	Service
	Stop all camera monitoring
	Start all camera monitoring
	Start monitoring all type events
	Stop monitoring all type events
	Service hour engaged
	Still waiting for subscriber to log in
	Unexpected subscriber logout during service times
	Can't find USB Protection Key
	Disk Error
	The Multicam Surveillance System starts recycling. [Storage 1]
	The POS is offline [POS 1, Mapping Camera:x, IP address]
Wiegand Data	Card No. xxxxxx (Camera xx)

Note: Error Code 1 indicates a codec error; Error Code 2 indicates that users can't write or record any data due to HD failure or user privilege

3.4 Subscriber Account

The VSM can serve up to **1,000** subscribers at a time. Create at least one subscriber before starting VSM services. To create a subscriber, follow these steps:

1. On the VSM widow, click the **Account** button (No. 2, Figure 3-1) to display the Address Book window.

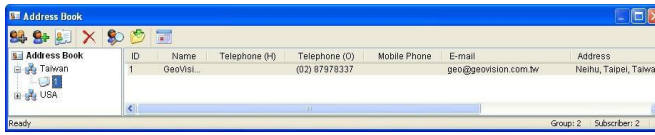


Figure 3-2

2. Click the **Add A Group** button to create a group folder.
3. Click the **Add A Subscriber** button to display the Subscriber Address Book dialog box.
4. Enter a login ID and password (required). Those will be the ID and Password for the subscriber to log in to the VSM. See Figure 3-3.
5. Enter the subscriber's contact information in the rest of fields (optional).
   - If you wish to send e-mail alerts to this subscriber, type its e-mail address. Up to two e-mail accounts can be created for the subscriber. For e-mail settings, see *E-Mail Alerts* later in this chapter.
   - If you wish to send SMS alerts to this subscriber, type its country code and mobile number. Up to two sets of mobile number can be created for this subscriber. For SMS server settings, see *SMS Alerts* later in this chapter.
6. Click **OK**. This adds the subscriber to the group folder created before. Returning to the VSM window, you will see a message: *Add a subscriber – xxx*. (Subscriber xxx has been added.)

3.5 Service Startup

After subscriber accounts are created, the VSM is ready to provide services. Clicking the **Start/Stop Service** button (No. 1, Figure 3-1) on the VSM window to receive signals from subscribers.

3.6 Connection to VSM

A single GV-System can connect to up to 5 VSM centers simultaneously for center monitoring. To configure GV-System in order to access the VSM remotely through a network connection, follow these steps:

1. Click the **Network** button, and select **Connect to VSM**. This dialog box appears.

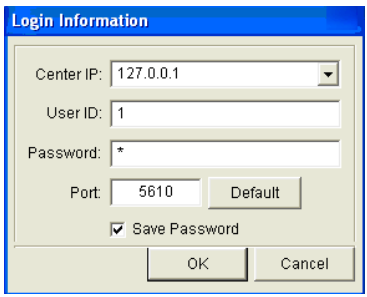


Figure 3-3

2. Type the IP address, the User ID and Password of one VSM. Click **OK**. This dialog box appears.

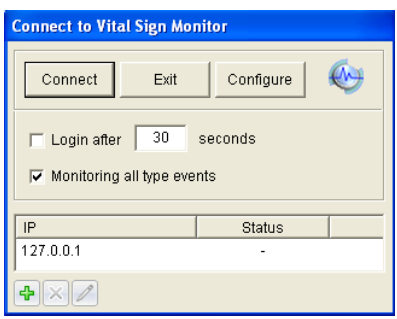


Figure 3-4

3. If you want to establish connection to the second VSM, click the button.
4. If you want to modify the login information of the established account, select the account in the dialog box, and click the button.
5. If you want to delete the established account, select the account in the dialog box, and click the button.
6. Click the **Connect** button to connect all established VSM centers. Make sure those VSM centers are also started for the connection.

3.6.1 Advanced Settings for Subscription

To further define the communication conditions between the subscriber and VSM, click the **Configure** button on the Connect to Vital Sign Monitor dialog box (Figure 3-4) to display the Advanced Settings dialog box. There are tabs: (1) General, (2) Camera, (3) I/O Device and (4) System Information.

General

The settings define the retry mode betw een GV-System and VSM.

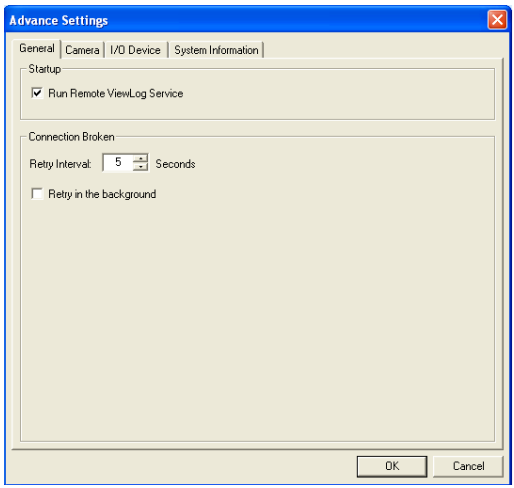


Figure 3-5

- **Run Remote ViewLog Service:** Allows the VSM to retrieve the recordings for playback. For details, see *3.10 Remote Playback*.
- **Retry Interval:** Specify the retry interval when the connection is not immediately available.
- **Retry in the background:** Hides the retries in the background.

Camera

The settings define the camera conditions to notify the VSM.

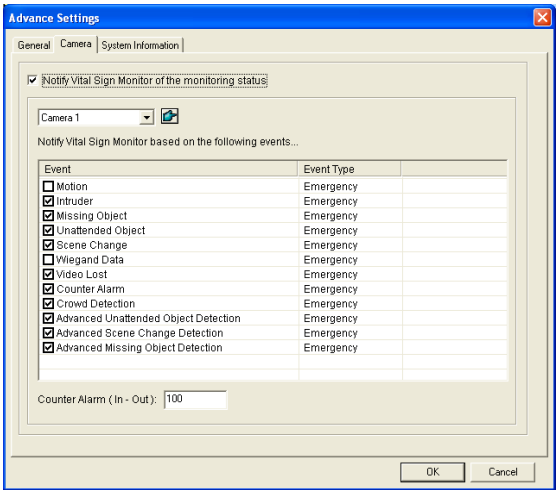


Figure 3-6

- **Notify Vital Sign Monitor of the monitoring status:** Select this option to enable the live monitoring through VSM. Select one camera and select the alert events that you like to notify the VSM when they occur. Click the Finger button to apply the same settings to all cameras.

  Event Type: Select **Emergency** for VSM to be notified of the alert event from this subscriber. Select **Normal** for the VSM to be notified of the alert event only when an assigned input is triggered at this subscriber or when the time is within the established schedule.

Note: To set notifications of **Normal** events by input or by schedule, see *Security Service* in *[I/O Device]* below.

- **Counter Alarm (In-Out):** Set a number to receive a notification when the count result (In number – Out number) exceeds the specified number. Note that the Object Counter function must be enabled and **Counter Alarm** must be selected under the Event Type list.

I/O Device

The settings define which I/O condition to notify the VSM. To configure these settings, first disable the **Monitor all type events** option in Figure 3-4.

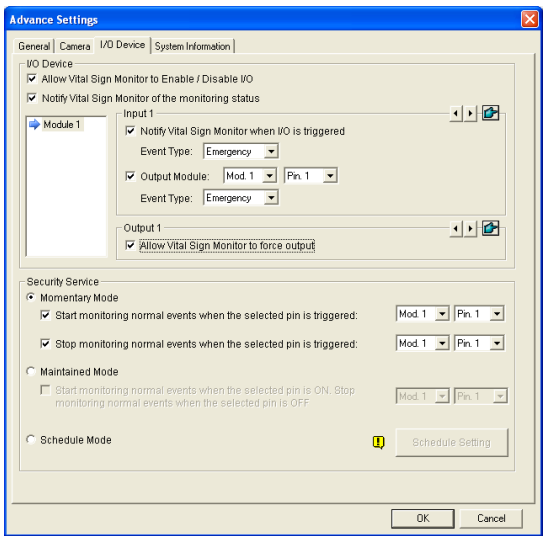


Figure 3-7

[I/O Device] Notifies the VSM when I/O devices are triggered. Use the **Arrow** buttons to configure each I/O device, or click the **Finger** button to apply to all I/O devices.

- **Allow Vital Sign Monitor to Enable / Disable I/O:** Allows the VSM manually arm/disarm any I/O devices at the subscriber's site without interrupting the monitoring.
  For example, when an alarm is triggered at the subscriber site, the VSM operator can turn it off remotely before arriving at the site. Meanwhile, GV-System still remains on monitoring.

- **Notify Vital Sign Monitor when I/O is Triggered:** Notifies the VSM when any selected input is triggered.

  Event Type: If the subscriber wants the VSM always to get notified of the input trigger, select **Emergency**. If the subscriber wants the VSM to get notified of the input trigger only when an assigned input is triggered, select **Normal**.

  Right Arrow button: Sets the delay time to notify the VSM of the input trigger. This feature is only available when the **Normal** type is chosen.
  - **Exit Delay:** While the system is activated, this feature provides an interval of time for the subscriber to exit the premises. During this time, the specified input (e.g. an exit/entry door) is inactive. Once the exit delay expires, the input will be fully armed.
  - **Entry Delay:** While the system is activated, this feature provides an interval of time for the subscriber to entry the premises. During this time, the specified input (e.g. a exit/entry door) is inactive so that the subscriber can disarm the system. If the subscriber fails to do, once the entry delay expires, the VSM will get notified of the input trigger.

- **Output Module:** Enables the assigned output module when the selected input module is triggered.
  For this example of Figure 3-7, when the I/O Device (Module 1, Input 4) is triggered, the Output (Module 1, Pin 3) will be activated simultaneously.

  Event Type: If the subscriber wants the VSM always to get notified of

the output trigger, select **Emergency**. If the subscriber wants the VSM to get notified of the output trigger only when an assigned input is triggered, select **Normal**.

Right Arrow button: Sets the delay time to trigger the assigned output module. This feature is only available when the **Normal** type is chosen. The **Exit Delay** and **Entry Delay** options are similar to those described in the input trigger.

Note: To set an input trigger for the notification of Normal events, see *[Security Service]* below.

- **Allow Vital Sign Monitor to Force Output:** Allows the VSM operator to manually force output devices installed at the subscriber's site.

[Security Service] Notify the VSM server of events only when an input is on or when the events occur within the defined schedule. For details, see *[I/O Device], Advanced Settings* in *1.5 Connection to Center V2.*

System Information

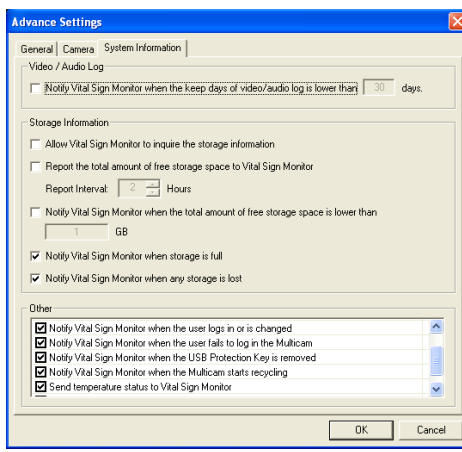

Advance Settings
General
Camera
System Information
Video / Audio Log
Notify Vital Sign Monitor when the keep days of video/audio log is lower than
30
days.
Storage Information
Allow Vital Sign Monitor to inquire the storage information
Report the total amount of free storage space to Vital Sign Monitor
Report Interval:
2
Hours
Notify Vital Sign Monitor when the total amount of free storage space is lower than
1
GB
Notify Vital Sign Monitor when storage is full
Notify Vital Sign Monitor when any storage is lost
Other
Notify Vital Sign Monitor when the user logs in or is changed
Notify Vital Sign Monitor when the user fails to log in the Multicam
Notify Vital Sign Monitor when the USB Protection Key is removed
Notify Vital Sign Monitor when the Multicam starts recycling
Send temperature status to Vital Sign Monitor
OK
Cancel

Figure 3-8

[Video/Audio Log] Notifies the VSM when the duration of the video/audio logs is less than the specified days.

[Storage Information]

- **Allow Vital Sign Monitor to inquire the storage information:** Allows the VSM to inquire the subscriber's storage information.
- **Report the total amount of free storage space to Vital Sign Monitor:** Reports the subscriber's size of free storage space.
- **Notify Vital Sign Monitor when the total amount of free space is lower than xx GB:** Notifies the VSM when the subscriber's storage space is insufficient. The space limit is 1 GB at least.
- **Notify Vital Sign Monitor when the storage space is full:** Notifies the VSM when the subscriber's storage space was full.
- **Notify Vital Sign Monitor when any storage is lost:** Notifies the VSM when the storage device is lost.

[Other]

- **Time synchronization with Vital Sign Monitor:** Enables the time increment/decrement of minutes and seconds at the subscriber site to match the time at the VSM.
- **Send Alert Message of POS' Loss Prevention to Vital Sign Monitor:** Notifies the VSM when abnormal POS transactions occur.
- **Notify Vital Sign Monitor when the user logs in or is changed:** Notifies the VSM when the GV-System logs in or a different user logs in.
- **Notify Vital Sign Monitor when the user fails to log in Multicam:** Notifies the VSM when the GV-System users fail to log in by typing wrong IDs or passwords.
- **Notify Vital Sign Monitor when the USB Protection Key is removed:** Notifies the VSM when the USB Protection Key is already removed from the GV-System.
- **Notify Vital Sign Monitor when the Multicam starts recycling:**

Notifies the VSM as soon as the recycle starts.

- **Send temperature status to Vital Sign Monitor:** Notifies VSM operator when the subscriber internal temperature reaches or exceeds the critical temperature specified.
- **Send POS device connection status to Vital Sign Monitor:** Notifies the POS connection status to the VSM.

Note:

1. When **Time synchronization with Vital Sign Monitor** is selected, the function of time synchronization will be activated as soon as the VSM is started up, and it will be re-activated every 12 hours.
2. The **Send temperature status to Vital Sign Monitor** is only supported in GV-System with GV-3008 Card and certain models of GV-IP camera.
3. The **Send POS device connection status to Vital Sign Monitor** option is only supported when the POS device is connected to the GV-System through LAN or the Internet.

3.6.2 Detecting Input Status

The feature is designed to monitor all inputs for a change of state whenever the subscriber starts the live monitoring through VSM. A change from the previously defined state (N/O to N/C or N/C to N/O) will activate an alarm condition.

Click on the Connect to Vital Sign Monitor dialog box (Figure 3-4). For details, see *Input State Detection*, Chapter 6, *GV-DVR User's Manual* on the Software DVD.

3.7 Subscriber Monitoring

3.7.1 Viewing Subscriber Status

To view the subscriber status, highlight one online subscriber on the VSM window, and then click the **View Subscriber Status** icon (No. 9, Figure 3-1) on the toolbar. The following window appears.

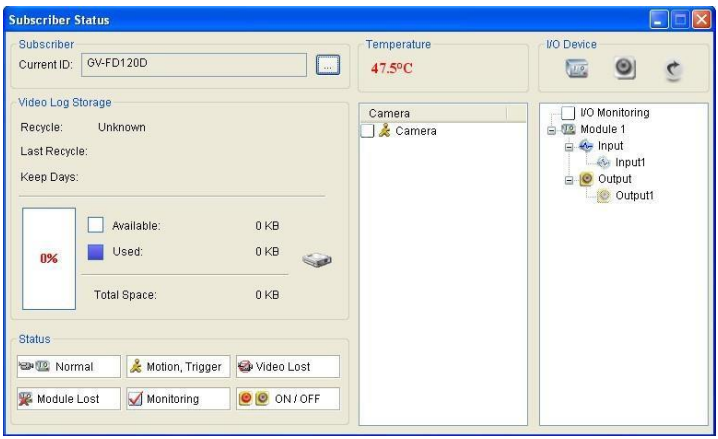


Figure 3-9

[Subscriber] Indicates the subscriber's ID. You can change the subscriber by clicking the **[…]** button.

[Video Log Storage] Indicates the information of video log and hard disk space. To view the detailed information of multiple storage groups on the subscriber, click the **[…]** button.

To use this function, subscribers must grant the privilege first. See the **Allow Vital Sign Monitor to inquire the storage information** option in Figure 3-8.

[Status] Indicates the meanings of icons.

[Temperature] Indicates the temperature of subscriber. This feature is only supported in certain models of GV-IP Camera, and GV-System with GV-3008 Card.

Note:

1. For the GV-IP Cameras that support temperature display, refer to the *GV-IPCAM H.264 User's Manual* for detail.
2. The option **Send temperature status to Vital Sign Monitor** must be enabled on GV-System with GV-3008 Card. For details, see *[System Information]*, *Advanced Settings for Subscription*, *3.6 Connection to VSM*.

[I/O Device]

- **Force Output:** To enable this tab, highlight one output from the tree list, and click this tab to force the output at the subscriber site to be triggered. For this function to work, the subscriber must grant the privilege first. See the **Allow Vital Sign Monitor to Force Output** option in Figure 3-7.
- **Enable/Disable I/O:** Allows the VSM to arm or disarm any I/O devices at the subscriber site without interrupting the monitoring.
  For this function to work, the subscriber must grant the privilege first. See the **Allow Vital Sign Monitor to Enable / Disable I/O** option in Figure 3-7.

Note: This function also supports the client GV IP devices of these firmware versions:
GV-Compact DVR: Firmware V1.43 or later
GV-IP Camera: Firmware V1.05 or later
GV-Video Server: Firmware V1.45 or later

3.7.2 Viewing Storage Information

With the above Subscriber Status window, you can see one subscriber's storage information. When the VSM is monitoring many subscribers, the following windows give you an overview of subscribers' storage information and monitoring status.

On the VSM window, click the **View Subscriber Information** button (No 6, Figure 3-1) to display the following window.

Monitoring

Indicates whether camera and I/O monitoring are enabled at the subscriber's sites.

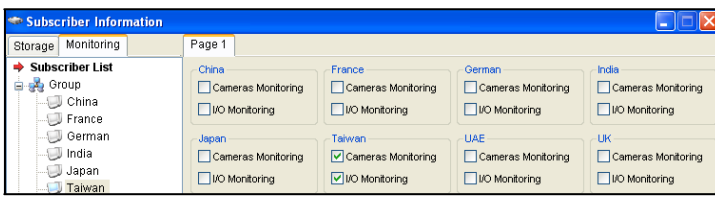


Figure 3-10

Storage

Indicates the total storage size and free space at the subscriber's sites. For this subscribers must grant this privilege first. See *[System Information]* in Figure 3-8.

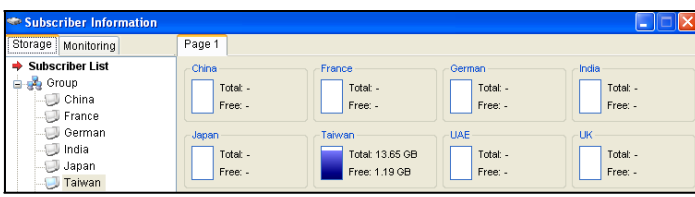


Figure 3-11

3.7.3 Disabling Subscription

The VSM operator can disable its services to an individual subscriber when subscription expires.

On the Address Book (Figure 3-2), right-click one subscriber and select **Disable**. To restore the subscription, right-click again to select **Enable**.

3.8 Subscriber Schedule

The VSM operator can create schedules to monitor subscription status. When subscribers don't log in the VSM on the programmed time, the operator and subscribers can get notified.

- To set up a schedule, see *1.11 Subscriber Schedule*.
- When a subscriber doesn't log in the VSM on time, this message will appear on the Event List: *Service hour engaged; still waiting for subscriber to log in.*
  When a subscriber logs out suddenly during a service time, this message will appear: *Unexpected subscriber logout during service times.*
- To activate the computer and output alarm to notify the operator while an SMS and an E-mail message being sent out to a subscriber, use the **Notification** feature. For details, see *Notification Settings* later in this chapter.

3.9 Alarm Report

For every event, the VSM operator can generate a report to evaluate certain conditions.

This function is the same as that of the Center V2. For details, see *1.12 Alarm Report*.

3.10 Remote Playback

You can retrieve the recordings from GV-System, GV-Video Server or GV-Compact DVR for playback.

The following function must be enabled ahead to allow remote access:

- **GV-System:** Enable the **Run Remote ViewLog Service** option in Figure 3-5, and start recording.
- **GV-Video Server/GV-Compact DVR:** Enable the **Remote ViewLog** function, and start recording.

1. On the Event List (No. 21, Figure 3-1), double-click one motion event. This window appears.

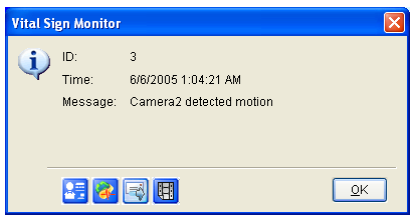


Figure 3-12

2. Click the **Remote Playback** icon. A setting dialog box appears.
3. Select the desired camera to be viewed, enter the ID and password to log in the DVR, and click **OK**. The Remote Playback window appears.
4. For the controls on the Remote Playback window, see *4.14 Instant Playback.*

3.11 Event List

On the bottom of the VSM window, events can be sorted under different tabs according to the type. You can utilize these tabs to quickly monitor events by type. You can also configure the **Customized Event** tab which contains self-chosen event types.

3.11.1 Adding Event Tabs

You can add event tabs to sort events by type.

1. On the main screen, click **View** and select **My Favorite Events**. A sub-menu appears.

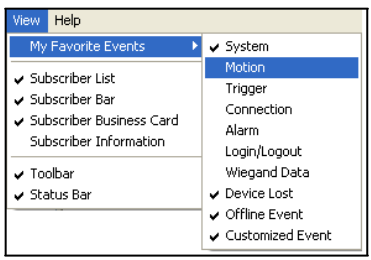


Figure 3-13

2. Select the desired event. The selected event type should appear as a tab at the bottom of the main screen.
3. To remove the event tab from the main screen, repeat steps 1 and 2 to unselect.

3.11.2 Setting up the Customized Event Tab

You can configure the **Customized Event** tab which groups the selected event types under a single tab. With only a click of the Customized Event tab, you can monitor the desired events instantly.

1. On the main screen, click **Configure** and select **Customize Message Settings**. The Customize Message Settings dialog box appears.
2. Select a desired event from the left and select **Add to Customized Event Tab**.

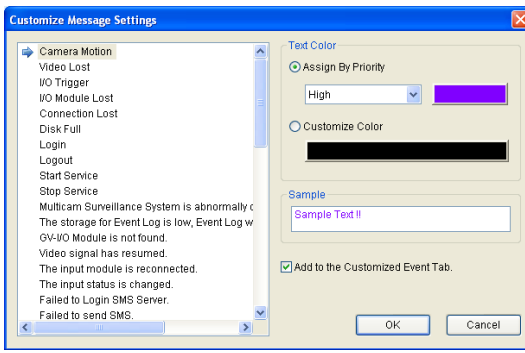


Figure 3-14

3. To add other event types into the Customize Event tab, repeat step 2.
4. On the main screen, click **View**, select **My Favorite Events**, and select **Customized Event** to add this tab to the main screen.

3.11.3 Setting Alert Level of Event Messages

You can assign an alert level to each event type for monitoring and management purposes. Each alert level can be distinguished by color. You can customize the color for each alert level or assign a color exclusively for a particular event type.

On the main screen, click **Configure** and select **Customize Message Settings**. The Customize Message Settings dialog box appears. For setup details, see *1.15 Setting Alert Levels of Event Messages*

3.12 Event Log Browser

To launch Event Log Browser, click **Tools** on the window menu and select **Event Log Browser**. This feature is the same as that in Center V2. For details, see *1.14 Event Log Browser.*

3.13 System Configuration

On the w indow menu, click **Configure** to see these options: (1) System Configure, (2) Password Setup, (3) Event Log Settings, (4) Local I/O Device (5) Virtual I/O (6) Notification and (7) Alerts Interval. These options are discussed in this section.

3.13.1 System Settings

Click **Configure** on the w indow menu, and then select **System Configure** to open this dialog box:

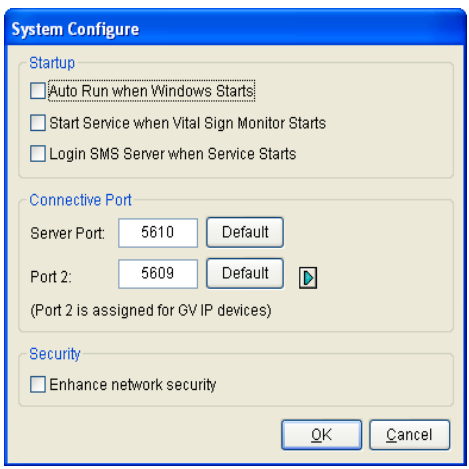


Figure 3-15

[Startup]

- **Auto Run when Windows starts:** Automatically runs VSM at Windows startup.
- **Start Service when Vital Sign Monitor starts:** Automatically starts the service when VSM starts.
- **Login SMS Server when Service starts:** Automatically logs in the SMS Server when the VSM service starts. You will be prompted to enter the related information of the SMS server.

[Connective Port]

- **Server Port:** Sets the communication port to match that of the subscriber, or keep it as default.
- **Port 2:** To set the appropriate port for the connection to the GV-Video Server, GV-IP Camera and GV-Compact DVR, keep the default port 5609, or modify it to match the VSM port on the GV IP devices. For details, see *GV-Video Server User's Manual*, *GV-IP Camera User's Manual*, or *GV-Compact DVR User's Manual*.

[Enhance network security] Enable to enhance Internet Security. Please notice when this feature is enabled, the subscribers using earlier version than version 7.0 cannot access the VSM any more.

[Arrow Button] The arrow button, in the Connective Port section, provide the UPnP function to configure the ports on your router automatically. For details on UPnP settings, see *UPnP Settings*, *Appendix*.

3.13.2 Password Settings

You can create administrator and user accounts with different privileges. Click **Configure** and then select **Password Setup** to open this dialog box.

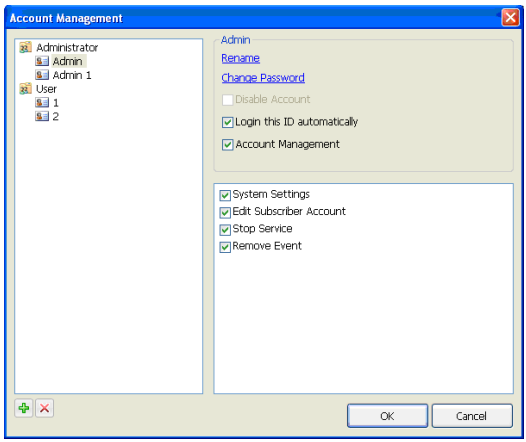


Figure 3-16

To change the login account, on the VSM window, click **Service**, select **Login/Change User**, and type the desired account ID and password for login.

3.13.3 Event Log Settings

Click **Configure** on the window menu, and select **Event Log Settings** to display the Event Log Settings dialog box. The settings are the same as those in Center V2. For details, see *Setting the Event Log* in *1.14 Event Log Browser*.

Also see *3.13 Event Log Browser*.

3.13.4 Notification Settings

When alert conditions occur, the VSM can automatically activate the assigned computer and output alarm to notify the operator while an SMS and an e-mail message are being sent out to subscribers.

To configure this function, click **Configure** on the window menu and select **Notification** to display the Alarm Settings window.

[Alert Approach]

- **Minimum Duration:** This option is only available for **Camera Motion** and **Connection Lost** alerts. The minimum duration is the minimal time period that the event must persist for Center V2 to be notified by alarm, output, e-mail and/or SMS. Select this option and click the **Edit** button to type the minimum duration. The default is **3** seconds.
  - For **Video Lost** alert: This is used to exclude video lost alerts from cameras that resume back to connection with GV-System instantly after they disconnect.

The other settings are the same as those in Center V2. For detail, see *1.16 Notification Settings*. Also see *3.15 Output Alerts*, *3.16 SMS Alerts*, *and 3.17 E-Mail Alerts*.

3.13.5 Alerts Interval Settings

You can define the frequencies of the motion-detected and video-lost alert messages. Click **Configure** on the window menu and select **Alerts Interval** to open this dialog box.

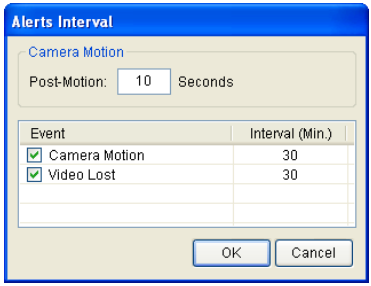


Figure 3-17

- **Post-Motion:** Specify how long the incoming alert messages of motion detection stay red-highlighted on the Event List (No. 21, Figure 3-1).
- **Event and Alerts Interval:** Specify the interval between the incoming messages upon motion detection or video lost. Select the event type and click on the interval column to change the period of time.

Note: The alert messages for the two types of events will still be shown on the Event List even if you don't select them. The settings here only affect the frequency of displaying the alert messages.

3.14 Output Alerts

You can activate output devices installed at the VSM site (local) and/or through the network (virtual) to warn the VSM operator when events occur. Up to nine (9) GV-I/O Boxes (including local and virtual) can be connected to a single VSM.

Note: Only 8-port and 16-port GV-I/O Boxes can be installed through the network.

3.14.1 Configuring a Local GV-I/O Box

On the window menu, click **Configure** and then select **Local I/O Device**. This I/O Device dialog box appears. For setup details, see *Configuring a Local GV-I/O Box* in *1.17 Output Alerts*.

3.14.2 Configuring a Virtual GV-I/O Box

On window menu, click **Configure** and then select **Virtual I/O**. The Virtual I/O Device dialog box appears. For setup details, see *Configuring a Virtual GV-I/O Box* in *1.17 Output Alerts*.

3.14.3 Triggering Outputs by Event

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For detail, see *Triggering Outputs by Event* in *1.17 Output Alerts*.

3.14.4 Triggering Outputs Manually

1. Click the **I/O Device** button on the VSM window. This dialog box appears.

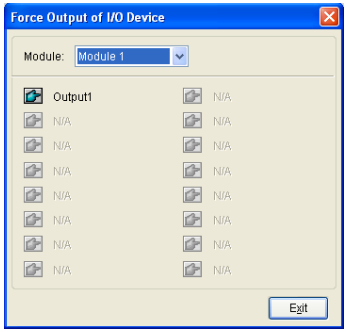


Figure 3-18

2. Select a desired module and then click the **Finger** button to trigger the output.

You can also trigger the output devices installed at the subscriber site by using the **Force Output** button on the Subscriber Status. For details, see [I/O Device], *Viewing Subscriber Status, 3.7 Subscriber Monitoring*.

3.15 SMS Alerts

This feature lets you send out SMS messages to subscribers when alert conditions occur.

3.15.1 Setting SMS Server

Before sending SMS messages to an individual subscriber, you need to define SMS Server correctly.

Click **Configure** on the window menu and select **SMS Setup**. For setup details, see *1.18 SMS Alerts*.

3.15.2 Sending SMS

Once the connection between the SMS Server and VSM is established, there are several ways to send out SMS messages to subscribers. See the VSM window for the following selections.

1. Click the **Send Short Message** button (No. 11, Figure 3-1). This sends out SMS to an individual subscriber manually.
2. On the Event List, double-click any event type to call up a message window, and then click the **Send Short Message** icon. This sends SMS to an individual subscriber manually.
3. On the Subscriber List (No. 18, Figure 3-1), right-click one subscriber and select **Send Short Message**. This sends SMS to an individual subscriber manually.
4. Click **Configure** on the window menu, and select **Notification** to display the Alarm Settings window. Select **Send SMS Alerts**. This sends SMS to subscribers automatically when alert conditions occur. See *Notification Settings* earlier in this chapter.

3.15.3 Inserting Device Information

The subscriber's ID and camera name can be automatically inserted to your SMS message when it is sent out.

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For details, see *Inserting Device Information*, *1.18 SMS Alerts*.

3.16 E-Mail Alerts

You can send e-mails to subscribers when alert conditions occur.

3.16.1 Setting Mailbox

Before you can send e-mails to an e-mail account, you need to define your mailbox correctly.

Click **Configure** on the window menu and select **E-Mail Setup**. For setup details, see *1.19 E-Mail Alerts*.

3.16.2 Sending E-Mail

There are several ways to send e-mail alerts. See the VSM window for the following selections.

1. Click the **E-Mail** button (No. 10, Figure 3-1). This sends the e-mail to an individual subscriber manually.
2. On the Subscriber List (No. 19, Figure 3-1), right-click one subscriber, and then select **Send E-Mail**. This sends the e-mail to an individual subscriber manually.
3. On the Event List, double-click one event to call up a message window, and then click the **e-mail** icon. This sends the e-mail to an individual subscriber manually.
4. Click **Configure** on the window menu and select **Notification** to display the Alarm Settings window. Select **Send E-Mail Alerts**. This sends e-mails to subscribers automatically when alert conditions occur. See *Notification Settings* earlier in the chapter.

3.16.3 Inserting Device Information

The subscriber's ID and camera name can be automatically inserted to your e-mail message when it is sent out.

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For details, see *Inserting Device Information*, *1.18 SMS Alerts*.

3.17 Temperature Alarm

You can set temperature alarm which notifies the VSM operator when the internal temperature of its subscriber reaches or exceeds the critical temperature specified.

Note:

1. This feature is only supported by certain models of GV-IP Cameras and GV-System with GV-3008 Card.
2. For the GV-IP Cameras that support temperature display, refer to the *GV-IPCAM H.264 User's Manual* for detail.

To configure the temperature alarm:

1. If you have a GV-System subscriber, make sure the **Send temperature status to Vital Sign Monitor** option is enabled. For details, see *[System Information]*, *Advanced Settings for Subscriber* in *3.6 Connection to VSM*.
2. On the VSM window, click **Configure** and select **Temperature Monitoring**. The Temperature Monitor dialog box appears.
3. In the Units section, select **Celsius** or **Fahrenheit**. The selected unit will be used in the alarm message.

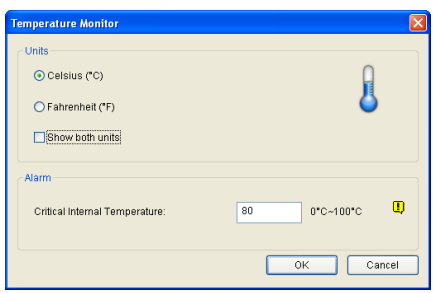


Figure 3-19

4. To show both units in the Subscriber Status (see Figure 3-9), select the **Show both units** option.

Tip: With the **Show both units** option is selected, select either **Celsius** or **Fahrenheit** for the unit to come before the other in the Subscriber Status.

5. In the Alarm section, specify the critical temperature.
6. Click **OK**. Once the temperature reaches or exceeds the critical temperature, an alarm event such as "Critical Temperature Alarm [77.5°C]", will be shown on the VSM window.

You can also invoke computer alarm and local output device, and send SMS and e-mail alerts using the Alarm Settings. For details, see *1.16 Notification Settings*, *2.14 SMS Alerts* and *2.15 E-Mail Alerts* respectively.

3.18 Event Chart

The Event Chart can provide you the daily, weekly and monthly statistical chart based on different criteria. This feature is similar as that in Center V2. For details, see *1.21 Event Chart*. To launch the Event Chart, click **Tools** on the window menu and select **Event Chart**.

3.19 Failover Server

You can configure up to two failover servers in case of the primary VSM server failure. Whenever the primary fails, the failover takes over the connection from subscribers, providing uninterrupted monitoring services.

To access this feature, on the VSM window menu (see Figure 3-1), click **Service**, and select **Automatic Failover Support**. This feature is the same as Center V2's. For details on setup, see *1.22 Failover Server*.

Appendix

A. Dongle Description
B. Upgrading the Black Dongle
C. Fast Backup and Restore
D. Watermark Proof
E. PTZ Control Using GV-Joystick
F. Corresponding Image Sizes of Subscriber and Center V2
G. UPnP Settings
H. Supported IP Device Brands
I. MultiLang Tool for Translated Text
J. Specifications

A. Dongle Description

Note the following requirements and limitations for GV-USB Dongle.

- An appropriate USB dongle of “Black” color is required for each CMS module to work.
- Using more than one Black Dongle on the same computer is possible. But remember the rule that **Control Center** and **Center V2** cannot be run together, and **Center V2** and **Dispatch Server** cannot be run together.
- The Black Dongle can be upgraded to include more functions.
- It is required to install drivers from the Software DVD for the Black Dongle to work.

Dongle options for Center V2

- Center V2 Pro
- Center V2 + VSM

Connection of Guardian Security Solutions IP devices to Center V2: The Center V2 accepts any video stream from Guardian Security Solutions IP video devices. There is no need to use an extra dongle. Currently Center V2 does not support the video streaming from third-party IP video devices.

Dongle options for Dispatch Server

- Dispatch Server
- Dispatch Server + VSM

Dongle options for VSM

- VSM
- VSM + Control Center
- VSM + Center V2
- VSM + Dispatch Server

B. Upgrading the Black Dongle

The Black Dongle can be upgraded to include more functions or enhance the system. You need to collect the data from your dongle and send it back to Guardian Security Solutions for an upgrade. The upgrade is a charged service. To upgrade your dongle, follow these steps:

1. Each dongle has its own serial number. Find it on the side of the dongle. Later this serial number will be used in naming the files for upgrading.

Figure B-1

2. Insert the dongle to the computer.
3. In the GV folder, double-click **GVUsbKeyUpClient.exe**. This dialog box appears.

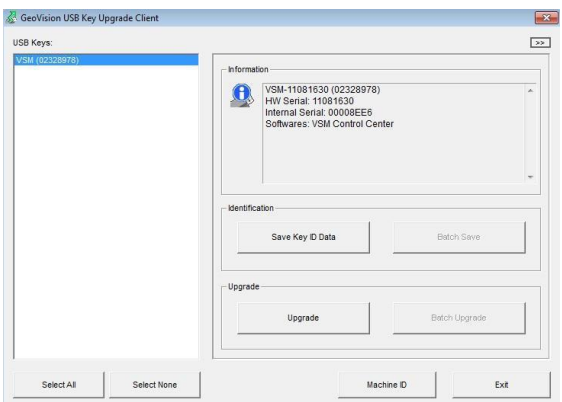


Figure B-2

4. To retrieve the data from the dongle, click **Select All**. The information of the dongle is displayed in the information field. Note the displayed number of "HW Serial" should be the same as that on the dongle.
5. To save the data to your local computer, click **Save Key ID Data**. If you have more than one dongle to upgrade, click **Batch Save**. Different dongle data will be saved as separate files. The file will be named after the serial number on the dongle and saved as ***.out**. For example, if a dongle serial number is 7116442, the file is named "NVR-7116442.out".
6. Send this data file to Guardian Security Solutions at sales@MyShield.org The Guardian Security Solutions will examine the data file and send an ***.in** file back to you. The file name also includes the serial number of that dongle. In this example, the data file you will receive is named "NVR-7116442.in".
7. After you receive the updated file, insert the correct dongle matching the .in file you receive, and then run **GVUsbKeyUpClient.exe**.
8. Click **Select All** to read the dongle, click **Upgrade** and then open the updated file to upgrade the dongle. You can also select more than one dongle in the list and click **Batch Upgrade** to upgrade them at the same time. Make sure these dongles match the updated files you receive.

C. Fast Backup and Restoration

With the Fast Backup and Restore (FBR) solution, you can change interface skin for Center V2 and Control Center, as well as back up and restore your configurations in CMS applications.

Installing the FBR Program

1. Insert the Software DVD, click **Install Guardian Security Solutions Free Utility**, select **GV-Fast Backup and Restore Multicam System**, and follow the on-screen instructions.
2. After the installation is complete, run **GV-Fast Backup and Restore Main System** from the Windows Start menu. This window appears.

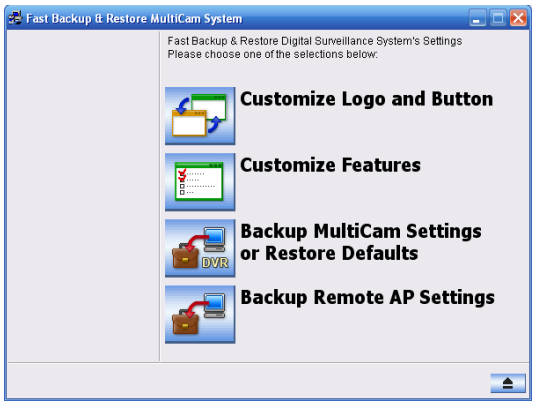

Fast Backup & Restore MultiCam System
Fast Backup & Restore Digital Surveillance System's Settings
Please choose one of the selections below:
Customize Logo and Button
Customize Features
DVR
Backup MultiCam Settings or Restore Defaults
Backup Remote AP Settings

Figure C-1

Backing Up and Restoring Settings

You can back up the configurations you made in the CMS application, and restore the backup data to the current system or import it to another site.

Backing Up the Settings

1. In the FBR window (Figure C-1), click the **Backup Remote AP Settings** icon, and select the desired application from the menu. For example, we select VSM Server. This dialog box appears.

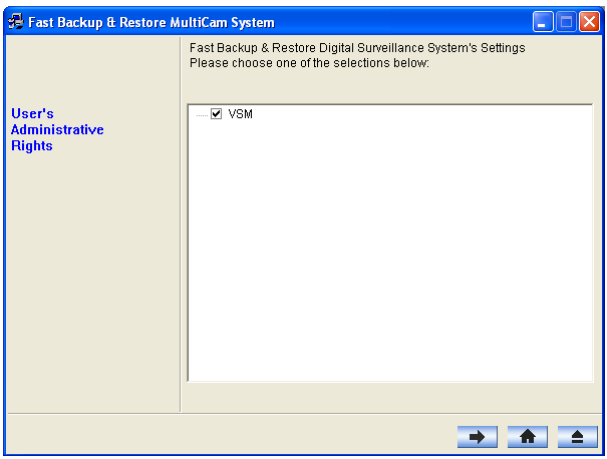


Figure C-2

2. Click the **Next Step** button . The Save As dialog box appears.
3. Select the destination drive to store the backup file. When the backup is complete, this message will appear: *Successfully Backup VSM Server Settings*.

Restoring the System

You can restore the current application settings with the backup of configuration file. Also, you can copy this backup file to configure another application at different site with the same settings as the current application.

1. Open the backup file (*.exe) you previously stored. A valid ID and password are required to display this window.

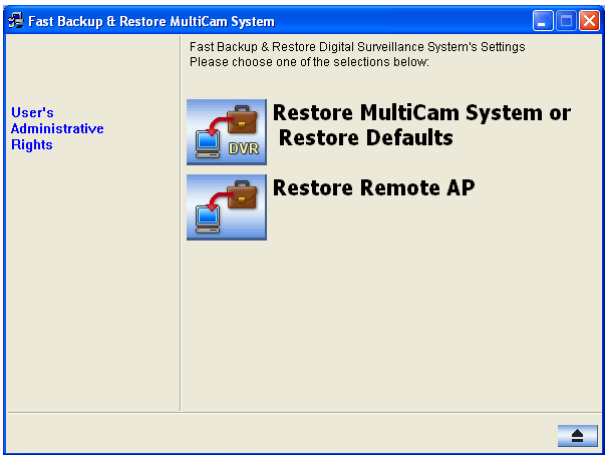

Fast Backup & Restore MultiCam System
Fast Backup & Restore Digital Surveillance System's Settings
Please choose one of the selections below:
User's Administrative Rights
DVR
Restore MultiCam System or Restore Defaults
Restore Remote AP

Figure C-3

2. Click the **Restore Remote AP** icon, and then select the application that you want to restore its backup settings. For example, we select VSM Server for restoration.
3. Click the **Next Step** button to start restoring.
4. When the restoration is complete, this message will appear: *Successfully Restore VSM Server Settings*.

D. Watermark Proof

Watermark Proof is a watermark-checking program by which you can verify the authenticity of the recordings.

1. Locate and run **WMProof.exe** in the Center V2 folder.
2. In the Watermark Proof window, click **File** from the menu bar, select **Open** and locate the recorded file (.avi). The selected file is then listed on the window. Alternatively, you can drag the file directly from the storage folder to the window.

Note: The default path of recorded files is :\\Center V2\Data\subscriber\Live

3. If the recording is unmodified, a check mark will appear in the **Pass** column. On the contrary, if the recording is modified or does not contain watermark during recording, a check mark will appear in the **Failed** column. To play the recording, double-click the listed file on the window.

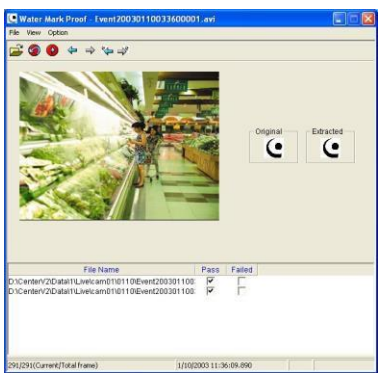


Figure D-1

E. PTZ Control Using GV-Joystick

You need to run the following program in the background when using the GV-Joystick to control PTZ. For details on the GV-Joystick operations, see *GV-Joystick User's Manual*.

- **Center V2**

You can control the PTZ cameras using GV-Joystick in **Camera/Audio Control** (see Figure 1-28). Up to 4 GV-Joysticks can be connected to control the PTZ cameras.

1. Run **mcamctrl.exe** from the program folder. This dialog box appears.

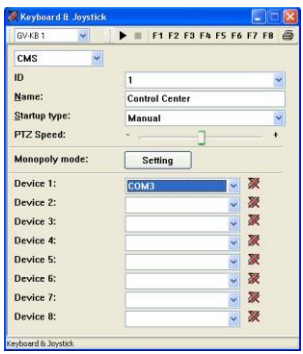


Figure E-1

2. In the Device field, select the COM port connected to the GV-Joystick.
3. Click the **Start Service** button ► (Figure D-1) and then you can use the GV-Joystick to control the PTZ camera.
4. If more than one GV-Joystick is connected, repeat Step 2 to set up and use another GV-Joystick.

F. Image Size

See the table below for the corresponding image size between Center V2 and its subscriber.

Subscriber / Center V2	Normal	Middle	Large	Actual Size
320 x 240	320 x 240	320 x 240	320 x 240	320 x 240
352 x 240	352 x 240	352 x 240	352 x 240	352 x 240
352 x 288	352 x 288	352 x 288	352 x 288	352 x 288
640 x 240	320 x 240	640 x 240	640 x 240	640 x 240
640 x 480	320 x 240	640 x 240	640 x 480	640 x 480
720 x 240	352 x 240	720 x 240	720 x 240	720 x 240
704 x 480	352 x 240	720 x 240	704 x 480	704 x 480
704 x 576	352 x 288	720 x 288	704 x 576	704 x 576
1280 x 960	320 x 240	640 x 240	640 x 480	1280 x 960
1280 x 1024	352 x 288	720 x 288	720 x 576	1280 x 1024
1600 x 1200	320 x 240	640 x 240	640 x 480	1600 x 1200
1920 x1080	352 x 240	720 x 240	720 x 480	1920 x 1080
2048 x 1536	320 x 240	640 x 240	640 x 480	2048 x 1536
2048 x 1944	352 x 288	704 x 288	704 x 576	2048 x 1944
2560 x 1920	320 x 240	640 x 240	640 x 480	2560 x 1920

Figure F-1

G. UPnP Settings

The Center V2, Dispatch Server and VSM support UPnP technology (Universal Plug and Play) to allow automatic port configuration to your router.

In order for UPnP to be enabled, the following requirements must be met:

- Windows XP Service Pack 2 or above
- Windows XP must be configured to use UPnP (see below)
- UPnP must be enabled on your router (consult your router's documentation)

To enable UPnP in Windows XP:

1. Go to Windows Start, click the **Start** button, select **Settings**, and select **Network Connections**. This window appears.

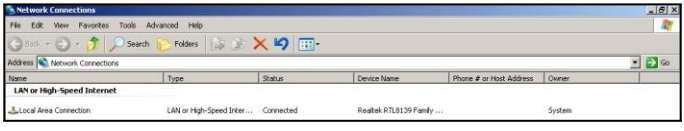

Network Connections
File Edit View Favorites Tools Advanced Help
Search Folders
Address Network Connections
Go
Name Type Status Device Name Phone # or Host Address Owner
LAN or High-Speed Internet
Local Area Connection LAN or High-Speed Inter... Connected Realtek RTL8139 Family ... System

Figure G-1

2. Right-click one **Local Area Connection**, select **Properties**, and click the **Advanced** tab. This dialog box appears. Click **Settings**.

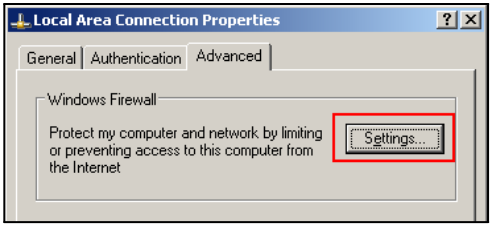


Figure G-2

3. Click the **Exceptions** tab. This dialog box appears.

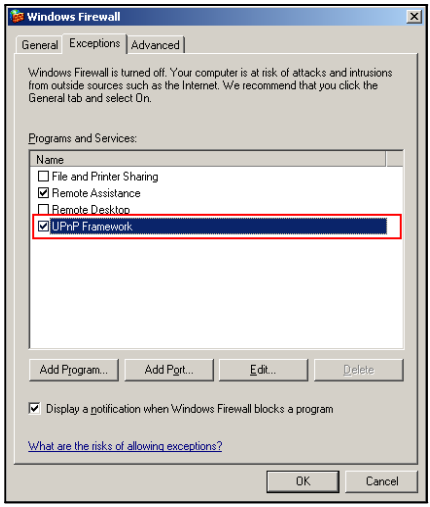


Figure G-3

4. Select **UPnP Framework**, and click **OK**.

H. Supported IP Device Brands

This list provides the supported IP device brands. For detail information about the supported IP devices, refer to Supported IP Camera List on Guardian Security Solutions

Guardian Security Solutions
ACTi
Arecont Vision
Axis
Bosch
Canon
CNB
D-Link
EtroVision
Hikvision
HUNT
IQinVision
JVC LG
Mobotix
Panasonic
Pelco
Samsung
Sanyo
SONY
UDP
Verint
Vivotek

I. MultiLang Tool for Translated Text

The user interface has been translated from English into 30 other languages. If you find the translation to be unsuitable and would like to correct it, you can use the MultiLang Tool to revise the translation. Next, you can apply the revised text to the applications and export an .exe file to make the same revision on another computer. You can also send the revision back to Guardian Security Solutions to have the revision included in future software releases.

Note: When using the MultiLang Tool, it is recommended to revise an entire sentence at a time instead of simply searching a single word and replacing the word in all other strings.

To revise the translated text:

1. To install MultiLang Tool, insert the Software DVD and select **Install Guardian Security Solutions Free Utility**.
2. Click **GV-MultiLang Tool** and follow the on-screen instructions.
3. Close all Guardian Security Solutions applications first and then double-click **MultilingualConfig.exe**. This dialog box appears.

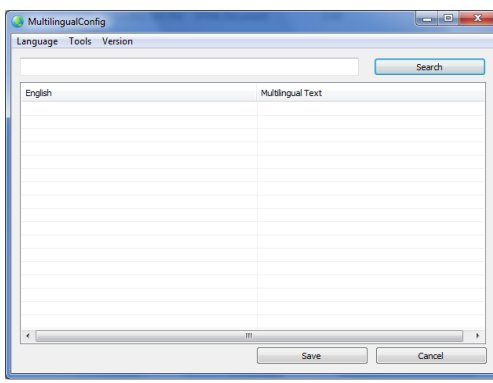


Figure I-1

4. Click **Language** and select the language of the text you want to revise.
5. In the **Search** field, type all or part of the text in English or the target language and click **Search**.

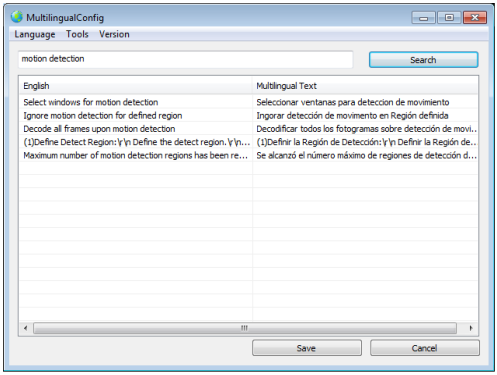

MultilingualConfig
Language Tools Version
motion detection
Search
English
Multilingual Text
Select windows for motion detection
Seleccionar ventanas para deteccion de movimiento
Ignore motion detection for defined region
Ingorar detección de movimento en Región definida
Decode all frames upon motion detection
Decodificar todos los fotogramas sobre detección de movi..
(1)Define Detect Region:\r\n Define the detect region.\r\n...
(1)Definir la Región de Detección:\r\n Definir la Región de..
Maximum number of motion detection regions has been re...
Se alcanzó el número máximo de regiones de detección d...
Save
Cancel

Figure I-2

Note:

1. The search is case sensitive.
2. Before making any revision, click **Tools** and select **Revision Note** to read the revision instructions.

6. Double-click the text you want to revise. This dialog box appears.

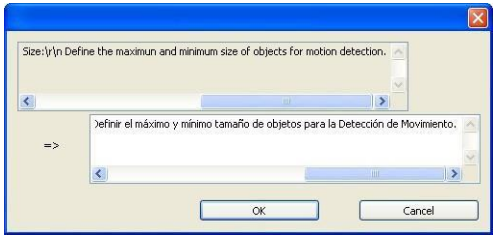

Size:\r\n Define the maximun and minimum size of objects for motion detection.
=>
)efinir el máximo y mínimo tamaño de objetos para la Detección de Movimiento.
OK
Cancel

Figure I-3

7. Revise the translated text and click **OK**.

Tip: The text may contain symbols such as **%d** or **\n** that instruct the application to perform certain functions. Be careful not to change the symbols in the translated text.

To apply the revised text:

1. To apply the revised translation to the applications, click **Save**. For the following applications, the system will automatically locate the corresponding files on your computer and replace with the revised translation.
   - GV-System
   - Remote View Log
   - Fast Backup and Restore (FBR)
   - GV-IP Device Utility
   - Multi View
   - Remote E-Map
   - Center V2
   - Vital Sign Monitor
   - Dispatch Server
   - GV-GIS
   - MCamCtrl Utility
   - POS Text Sender
   - Authentication Server
   - SMS Server
   - Audio Broadcast
   - Multicast
   - Bandwidth Control Client Site
   - Backup Viewer
   - Mobile Server
2. After applying the revision, a dialog box appears to show which

applications have been revised. Click **OK**.

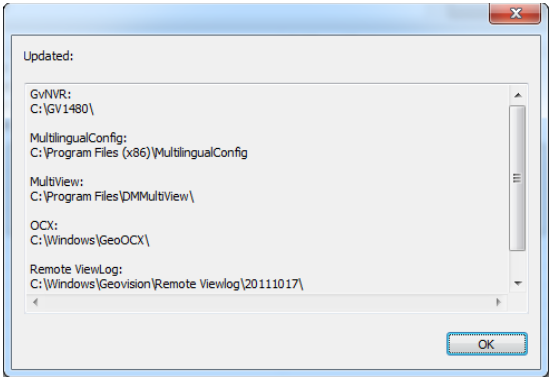


Figure I-4

3. The message "*Do you want to apply the revised multilingual texts to another folder?*" appears. If the storage path for the application has been changed or if the associated application is not listed in the dialog box, click **Yes** and select the folder of the application.

To export or send the revised text:

1. To export the revision as an executable file, click **Tools**, **Export** and **Export executable file**. You can copy the .exe file to another computer and apply the same translation revision by running the .exe file.
2. To report the translation revision back to Guardian Security Solutions,
   - If your default mail client is Outlook, Outlook Express or Mozilla Thunderbird, click **Tools**, **Export** and **Send Report** to send the revision.

J. Specifications

Product specifications are subject to change without notice.

Center V2

Feature	Note
Maximum of Subscribers (standard)	5
Maximum of Subscribers (professional)	500
Maximum of Channels (standard)	160
Maximum of Channels (professional)	800
Control of GV-Joystick	Yes
Backup to CD/DVD	Yes
Alarm Reports of Events	Yes
Notification of SMS Alerts	Yes
Notification of E-mail Alerts	Yes
Notification of E-Map Alerts	Yes
Automatic Connection Recovery	Yes
Support for Mega Pixel Resolution	Yes
Real-Time Monitoring	Yes
Remote PTZ Control	Yes
Remote I/O Control	Yes

Dispatch Server

Feature	Note
Maximum No. of Channels	40,000
Maximum No. of Subscribers	25,000
Maximum No. of Center V2	50
Maximum No. of Sensors / Alarms	3,600,000
Real-Time Audio Monitoring	Yes
Remote PTZ Control	No
Remote I/O Control	No
Auto Recording	No
Event List Viewer	Yes
Event List Filter	Yes
Dual Monitor Support	No
Network Load Support	Yes
Automatic Connection Recovery	Yes

Comparison of VSM and Center V2 Pro

Feature	VSM	Center V2 Pro
Subscriber	1,000	500
Group	Yes	Yes
Bandwidth	4Mbps	25Mbps
Record Mode	No	Live / Attachment / Both
Live Subscriber Status	Yes	No
Auto Login	Yes	Yes
I/O Control	Yes	Yes
SMS Message	Yes	Yes
Time Synchronization	Yes	Yes
Keep Day Notify	Yes	No
Event Message	Yes	Yes
Notification Setting	Yes	Yes
Event Log	Yes	Yes
Connection Lost Detection	Yes	Yes
I/O Device Support	Yes	Yes
Subscriber Storage Info.	Yes	No